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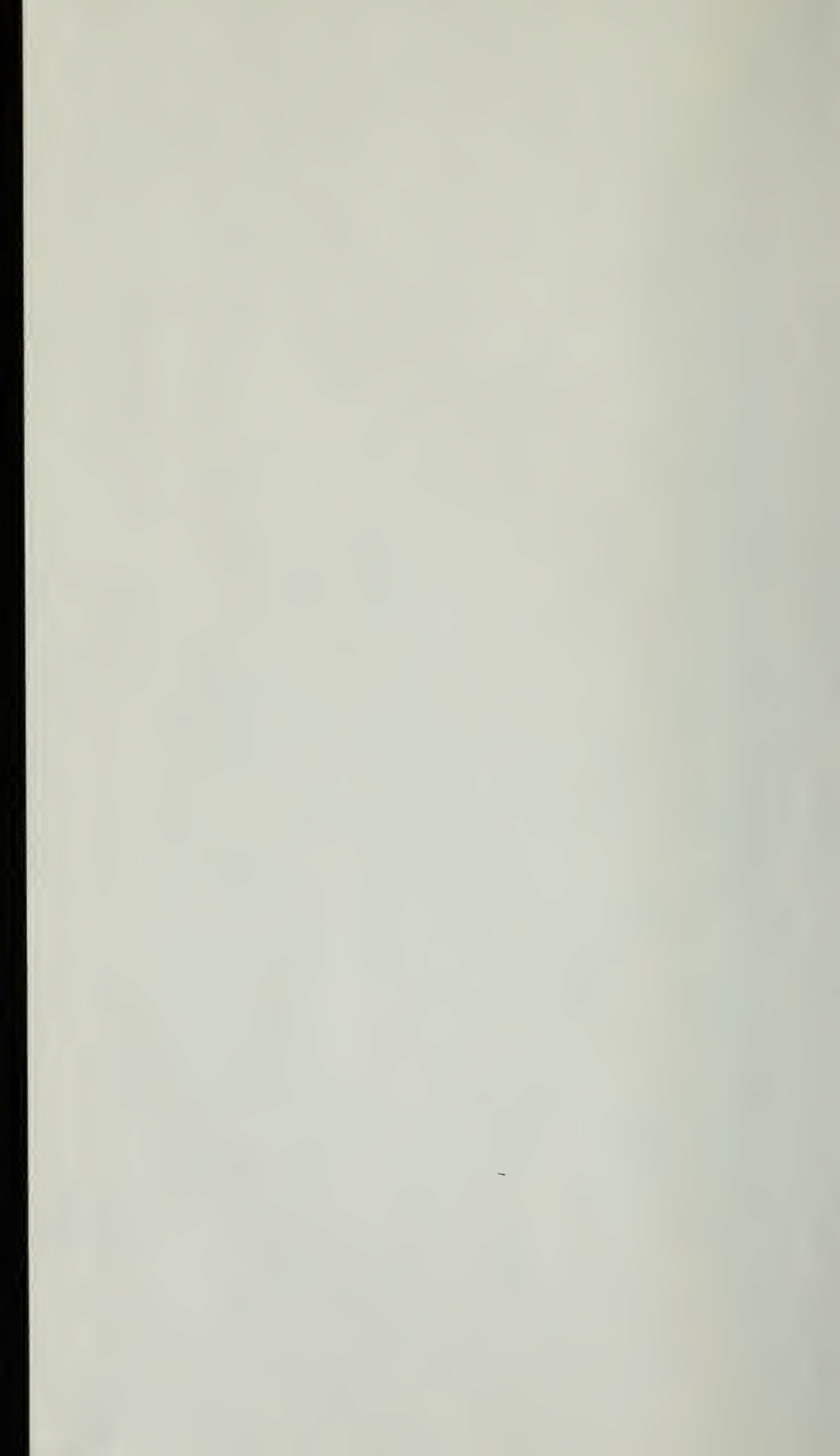
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PREVENTING THE MANUFACTURE OF ADULTERATED OIL, TURPENTINE, OR PAINT

HEARINGS

U.S. Congress Senate
BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON MANUFACTURES, UNITED STATES SENATE

SIXTY-FOURTH CONGRESS

FIRST SESSION

ON

S. 1289

A BILL FOR PREVENTING THE MANUFACTURE, SALE, OR
TRANSPORTATION OF ADULTERATED, MISLABELED, OR
MISBRANDED LINSEED OIL, TURPENTINE, OR PAINT

Printed for the use of the Committee on Manufactures



WASHINGTON
GOVERNMENT PRINTING OFFICE

1918

States any such adulterated, mislabeled, or unlabeled linseed oil, turpentine, or paint, or export or offer to export the same to any foreign country, shall be guilty of a misdemeanor, and for such offense be fined not exceeding \$200 for the first offense, and, upon conviction for each subsequent offense not exceeding \$300, or be imprisoned not exceeding one year, or both, in the discretion of the court: *Provided*, That any linseed oil, turpentine, or paint shall not be deemed adulterated or required to be labeled within the provisions of this act when intended for exportation to foreign countries when marked or labeled in a manner not in conflict with the laws of the foreign country to which the same is intended to be shipped; but if any of said articles shall in fact be sold or offered for sale for domestic use or consumption, then this proviso shall not operate as an exemption from any of the other provisions of this act: *Provided further*, That nothing in this act shall prohibit a manufacturer of linseed oil, turpentine, or paint to sell upon a written contract to a consumer, for use only on products of his own manufacture, goods mislabeled or unlabeled as to their ingredients but bearing conspicuously the printed statement that they are made in accordance with a private formula: *Provided*, That no linseed oil, turpentine or paint made in accordance with a private formula, under a written contract, shall be sold by the consignee or used upon any buildings.

SEC. 3. That the Secretary of the Treasury, the Secretary of Agriculture, and the Secretary of Commerce shall make uniform rules and regulations for carrying out the provisions of this act and including the collection and examination of linseed oil, turpentine, and paint manufactured or offered for sale in the District of Columbia or in any Territory or District of the United States, or which shall be offered for sale in unbroken packages in any State other than that in which they shall have been respectively manufactured or produced, or which shall be received from any foreign country or intended for shipment to any foreign country, or which may be submitted for examination by the chief health, food, or drug officer or agent of any State, Territory, or District of the United States, or at any domestic or foreign port through which such product is offered for interstate commerce or for export or import between the United States and any foreign port or country.

SEC. 4. That the examination of such specimens shall be made in the Bureau of Chemistry of the Department of Agriculture, or under the direction and supervision of such bureau, for the purpose of determining from such examinations whether such articles are adulterated or misbranded within the meaning of this act; and if it shall appear from any such examination that any of such specimens is adulterated or improperly branded or labeled within the meaning of this act, the Secretary of Agriculture shall cause notice thereof to be given to the party from whom such sample was obtained. Any party so notified shall be given an opportunity to be heard, under such rules and regulations as may be prescribed as aforesaid, and if it appears that any of the provisions of this act have been violated by such party, then the Secretary of Agriculture shall at once certify the facts to the proper United States district attorney, with a copy of the results of the analysis or the examination of such article, duly authenticated by the analyst or officer making such examination under the oath of such officer. After judgment of the court, notice thereof shall be given by publication in such manner as may be prescribed by the rules and regulations aforesaid.

SEC. 5. That it shall be the duty of each district attorney to whom the Secretary of Agriculture shall report any violation of this act, or to whom any health or food or drug officer or agent of any State, Territory, or District shall present satisfactory evidence of any such violation, to cause appropriate proceedings to be commenced and prosecuted in the proper courts of the United States, without delay, for the enforcement of the penalties as in such case herein provided.

SEC. 6. (a) That the term "linseed oil" as used in this act shall include the products known as "linseed oil," "raw linseed," "raw linseed oil," "boiled linseed," "boiled linseed oil," or "boiled oil."

(b) That for the purpose of this act the following standard is hereby established: Linseed oil, raw linseed, or raw linseed oil is the fixed oil obtained from the seeds of the flax plant (*Linum usitatissimum*)—without the admixture of any other material. It shall be deemed a violation if raw linseed oil does not conform to the following requirements:

First. Its specific gravity, at a temperature of fifteen and five-tenths degrees centigrade, shall be not less than nine thousand three hundred and fifteen ten-thousandths nor greater than nine thousand three hundred and sixty ten-thousandths.

Second. Its acid value shall not exceed six.

Third. Its saponification value (Koettstorfer number) shall not be less than one hundred and eighty-seven nor greater than one hundred and ninety-five.

Fourth. It shall not contain more than one and one-half per centum of unsaponifiable matter.

Fifth. Its iodine value (Hanus number) shall be not less than one hundred and seventy nor greater than one hundred and ninety.

SEC. 7. (a) That for the purpose of this act "boiled linseed," "boiled linseed oil," or "boiled oil," hereinafter referred to as "boiled linseed oil," shall be deemed adulterated unless the same shall have been prepared by heating pure raw linseed oil to a temperature of at least one hundred and seven degrees centigrade, with or without the incorporation of a dryer.

(b) And for the purpose of this act it shall also be deemed a violation hereof if boiled linseed oil does not conform to the following requirements:

First. Its specific gravity at $\frac{15.5}{15.5}$ degrees centigrade shall be not less than 0.936.

Second. Its saponification number shall be not less than one hundred and eighty-eight.

Third. Its Hanus iodine adsorption number shall be not less than one hundred and sixty.

Fourth. Its acid value shall not exceed ten.

Fifth. The volatile matter expelled at one hundred degrees centigrade shall not exceed two-tenths of one per centum.

Sixth. No mineral oil or rosin oil shall be present, and the amount of unsaponifiable matter as determined by standard methods shall not exceed two per centum.

Seventh. The film left after flowing the oil over glass and allowing it to drain in a vertical position must dry free from tackiness in not to exceed twenty hours at a temperature of about twenty degrees centigrade.

SEC. 8. That the product turpentine, oil of turpentine turps, is defined to be the volatile portion obtained by distillation of the oleo-resins from various species of coniferous trees: *Provided*, That the sale of so-called "stump turpentine" is not prohibited if it is so labeled. The addition of mineral oils or any other substance, to turpentine shall be in violation of this act.

SEC. 9. That the term "paint" as used in this act shall include oxide of zinc, red lead and white lead, dry or in any kind of oil, or any compound interded for the same use, colors ground in oil, except artists' tube colors, paste or semipaste paint, and liquid or mixed paint ready for use. For the purposes of this act, white lead shall mean both the basic carborate and basic sulphate, and when the term "white lead" is used on a label to describe either product, such term shall be used, as the case may be.

SEC. 10. That the label required by this act shall clearly and distinctly state the name and residence of the manufacturer of the paint, or of the distributor thereof, or of the party for whom the same is manufactured, and show the name and, with substantial accuracy, the percentage of each ingredient, both solid and liquid, contained therein as the same would be disclosed by an ordinary chemical analysis thereof, it being the intention of this act to furnish the consumer with such information only concerning the composition of said paint as he could obtain by submitting the same to a chemical analysis. Such label shall be printed in plain, legible type, and, so far as possible, common English words shall be used instead of technical terms.

SEC. 11. That the label on all liquid or mixed paints shall show the net measure of the contents of the container, and on all paste and semipaste paints sold by weight the net weight of the contents of the package, or, if sold by measure, the net measure of such contents.

SEC. 12. That for the purpose of this act an article shall also be deemed to be improperly labeled or misbranded—

First. If it be an imitation of or offered for sale under the name of another article.

Second. If the contents of the package as originally put up shall have been removed, in whole or in part, and other contents shall have been placed in such package, or if the package fails to bear a statement on the label of the quantity or proportion of such ingredient contained therein.

Third. If the package containing it or its label shall bear any statement, design, or device regarding the ingredients or the substances contained therein which statement, design, or device, shall be false or misleading in any particular.

SEC. 13. That no person shall be prosecuted under the provisions of this act when he can establish a guaranty signed by the wholesaler, jobber, manufacturer, or other party residing in the United States from whom he purchases such articles to the effect that the same is not adulterated or improperly labeled within the meaning of this act, designating it. Said guaranty, to afford protection, shall contain the name and address of the party or parties making the sale of such articles to such person, and in such case said party or parties shall be amenable to the prosecutions, fines, and other penalties which would attach in due course to such person under the provisions of this act.

SEC. 14. That any linseed oil, turpentine, or paint that is adulterated or improperly labeled within the meaning of this act, and is being transported from one State, Territory, District, or insular possession to another for sale, or having been transported, remains unloaded, unsold, or in original unbroken packages, or if it be sold or offered for sale in any District, Territory, or insular possession of the United States, or if it be imported from a foreign country for sale, or if it is intended for export to a foreign country, shall be liable to be proceeded against in any district court of the United States within the district where the same is found and seized for confiscation by a process of libel for condemnation. And if such article is condemned as being adulterated or improperly labeled within the meaning of this act, the same shall be disposed of by destruction or sale, as the said court may direct, and the proceeds thereof, if sold, less the legal costs and charges, shall be paid into the Treasury of the United States, but such goods shall not be sold in any jurisdiction contrary to the provisions of this act or the laws of that jurisdiction: *Provided, however,* That upon the payment of the costs of such libel proceedings and the execution and delivery of good and sufficient bond to the effect that such article shall not be sold or otherwise disposed of contrary to the provisions of this act or the laws of any State, Territory, District, or insular possession, the court may by order direct that such articles be delivered to the owner thereof. The proceedings of such libel cases shall conform, as near as may be, to the proceedings in admiralty, except that either party may demand trial by jury of any issue of fact joined in any such case, and all such proceedings shall be at the suit and in the name of the United States.

SEC. 15. That the Secretary of the Treasury shall deliver to the Secretary of Agriculture, upon his request from time to time, samples of linseed oil, turpentine, and paint which are being imported into the United States or offered for import, giving notice thereof to the owner or consignee, who may appear before the Secretary of Agriculture and have the right to introduce testimony, and if it appear from the examination of such samples that any such article offered to be imported into the United States is adulterated or misbranded within the meaning of this act, or is of a kind forbidden entry into or forbidden to be sold or restricted in sale in the country in which it is made or from which it is exported, or is otherwise falsely labeled in any respect, the said article shall be refused admission, and the Secretary of the Treasury shall refuse delivery to the consignee, and shall cause the destruction of any goods refused delivery which shall not be exported by the consignee within three months from the date of notice of such refusal under such regulations as the Secretary of the Treasury may prescribe: *Provided,* That the Secretary of the Treasury may deliver to the consignee such goods pending examination and decision in the matter on execution of a penal bond for the amount of the full invoice value of such goods, together with the duty thereon, and on refusal to return such goods for any cause to the custody of the Secretary of the Treasury when demanded, for the purpose of excluding them from the country or for any other purpose, said consignee shall forfeit the full amount of the bond: *And provided further,* That all charges for storage, cartage, and labor on goods which are refused admission or delivery shall be paid by the owner or consignee, and in default of such payment shall constitute a lien against any future importation made by such owner or consignee.

SEC. 16. That the term "territory" as used in this act shall include the insular possessions of the United States. The word "person" as used in this act shall be construed to import both the plural and the singular, as the case demands, and shall include corporations, companies, societies, and associations. When construing and enforcing the provisions of this act, the act, omission, or failure of any officer, agent, or other person acting for or employed by any corporation, company, society, or association, within the scope of his employment or office, shall in every case be also deemed to be the act, omission, or failure of such corporation, company, society, or association as well as that of the person.

SEC. 17. That this act shall be in force and effect from and after one year from the date of its passage and approval.

The CHAIRMAN. I would like to make a suggestion with respect to this hearing. The statements ought to be with respect to the reasons without any great amount of speech making. Speeches do not count anyhow.

I suggest that you take charge of the hearing, Senator Kenyon, and put your evidence in.

Senator KENYON. The subcommittee will first hear Mr. Dewar.

Mr. Dewar, will you state what your position is, and then state the need of this legislation?

STATEMENT OF JOHN J. DEWAR, OF PITTSBURGH, PA.

Mr. DEWAR. I am a master painter. I have three letters here which I received from commissioners who have had a great deal of experience in paint matters.

Senator KENYON. Can you not put those in the record?

Mr. DEWAR. I will put these in evidence.

(The letters referred to, marked "Exhibits 1, 2, and 3," respectively, are here printed in full, as follows:)

EXHIBIT 1.

NORTH DAKOTA AGRICULTURAL EXPERIMENT STATION,
Agricultural College, N. Dak., March 30, 1916.

HON. JAMES A. REED,

Chairman Committee on Manufactures.

DEAR SIR: I am informed that there is to be a hearing on the Kenyon paint bill now before Congress, Tuesday, April 4, and as one who has had to do with paint work for the past 14 years and the enforcement of the paint law for North Dakota during the past 10 years, I desire to emphasize the necessity, as fully as I can, for a Federal paint law.

There is no place where there is more deception and fraud practiced at the present time than in the manufacture and sale of certain classes of paints, oils, turpentines, and varnishes; and the public have no means of protection, except in a few of the States. Manufacturers doing business in North Dakota are now generally agreed that all of the better manufacturers are benefitted by the enforcement of the paint law. The evils of the paint trade, oil trade, turpentine trade, and the varnish trade can not be eliminated except through the enactment of a strong Federal law that will make it a misdemeanor to substitute other products for linseed oil or turpentine, or to misbrand a paint in any way. The public are entitled to know the composition of each and every paint which they are asked to purchase. The formula label works no hardship to any manufacturer. All are complying with the requirements in North Dakota, and no manufacturer has been prosecuted, nor have we found it necessary to prosecute since the original case that was contested all through our courts to the Supreme Court of the United States.

Paints are sold which are advertised as having as their base white lead, when as a matter of fact they contain no real white lead at all, or if white lead is used it is a minor constituent. In place of turpentine substitutes are used, and the linseed oil is not always as represented. More than that, emulsifiers are added so that water may be used, and through the influence of these emulsifiers the product appears to be thicker and better than it really is.

I am sending you, under another cover, copies of bulletins Nos. 70, 86, paint bulletins 5 and 6, and a reprint from my annual report for 1912. I trust these will contain information that will be at least suggestive as to the needs of a paint law.

Yours, very truly,

E. F. LADD, *Commissioner.*

EXHIBIT 2.

COMMONWEALTH OF VIRGINIA, DAIRY AND FOOD DIVISION,
Richmond, March 30, 1916.

Senator JAMES A. REED,

Chairman of the Committee on Manufactures, Washington, D. C.

DEAR SIR: I have been advised that Senate bill No. 1289, introduced by Senator Kenyon of Iowa, having for its purpose the prevention of the manufacture, sale, or transportation of adulterated, mislabeled, or misbranded linseed oil, turpentine, and paint, has been referred to your committee. As this is a matter in which this department is and has been very much interested for several years past, I desire to express to you the hope that your committee will give to this proposed legislation your favorable consideration and report. I am satisfied, from an investigation of this traffic in misbranded linseed oil, turpentine, and paints extending over a period of several years, that there is an insistent demand by the consumers of paint products for legislation which will stop the abuses which are now freely practiced in the distribution

of the products named. As an instance of the adulteration of linseed oil and turpentine, I beg to say that products labeled linseed oil and turpentine can be purchased on the Virginia markets at prices per gallon ranging from 2 cents to 5 cents below the prices charged at the distributing centers for the unadulterated products. I am also satisfied from my observation of the buildings in this State, especially buildings in the rural districts to which the ready mixed paints have been applied, and from the dissatisfied comments of the owners of these buildings, that large quantities of worthless mixed paints are being distributed to the citizens of this State. I do not believe an oil and paint law which did not require a percentage formula statement on the package would be an effective measure. The required statement should not include information which might reveal trade secrets, except in so far as this information could be gained from a chemical analysis and other examination of the product.

A bill attempting to establish inspection and supervision of the manufacture and distribution of linseed oil, turpentine, and paint was defeated at the last session of the Virginia Legislature. The bill contained a provision for raising revenue for its enforcement in the form of a tax on the sales, the tax to be arrived at by the volume of oil, paint, etc., sold during the calendar year. This revenue feature, in my opinion, was the main cause of the defeat of the measure, and that the opponents of the measure claimed that as long as the Federal laws did not undertake a supervision over the sale of paint products and only incidentally over the sale of linseed oil and turpentine, it would work an injustice to the Virginia dealer if the Virginia Legislature passed laws which could not be applied to the jobber and manufacturer shipping his products from beyond the borders of the State directly to the consumers within the State. These were the two main reasons of the defeat of the proposed Virginia linseed oil and paint bill. I cite this in order that you may know the sentiment of this State is unqualifiedly for such national legislation as would stop the abuses in this industry, and that as soon as a Federal statute is enacted which will effectively control the interstate shipments the national law would be promptly supplemented by the enactment of a similar statute in Virginia.

I have the honor to be,

Very respectfully, your obedient servant,

BENJ. L. PURCELL, *Commissioner*.

EXHIBIT 3.

STATE OF IOWA DAIRY AND FOOD COMMISSION,
Des Moines, March 30, 1916.

Hon. JAMES A. REED,

Chairman Committee on Manufactures, Washington, D. C.

DEAR SIR: We understand that the Kenyon paint bill will be considered by the Committee on Manufactures on Tuesday, April 4, and we are writing to urge that every effort be used to secure the recommendation and early passage of this measure.

This department has been compelled to make nearly 200 prosecutions against retail dealers for the sale of adulterated oil, which was shipped in interstate commerce, thus making it impossible for us to reach the wholesaler or jobber. Large manufacturers of farm machinery and furniture are making complaint that adulterated linseed oil is shipped to them in interstate commerce, and the food and drugs act affords no protection where these commodities are to be used for commercial purposes.

Only recently our State board of control was swindled by one of these concerns with headquarters at Cleveland, Ohio. Reports from various sources in this State show that agents of these firms are active in securing contracts for future delivery, and legitimate manufacturers in this and other States inform us that prices quoted are below cost of manufacture of a pure article.

We trust you will give this bill every consideration and do all you can to hasten its passage.

Yours, very truly,

W. B. BARNEY, *Commissioner*.

The CHAIRMAN. Have you read these letters?

Mr. DEWAR. Yes, sir.

The CHAIRMAN. What is your business?

Mr. DEWAR. I am a master painter.

The CHAIRMAN. You have worked with paints all your life?

Mr. DEWAR. No, sir; not all my life—practically so; yes, sir.

The CHAIRMAN. A great many years, however?

Mr. DEWAR. Yes, sir.

The CHAIRMAN. Do you say that, having examined these letters or statements, they are correct?

Mr. DEWAR. Yes, sir.

Senator KENYON. Have you any other exhibits that you desire to put in the record?

Mr. DEWAR. Yes, sir; I have here two bulletins from the agricultural department of North Dakota on the conditions of paint, oil, and turpentine as found on the markets in that State. The bulletin shows in the matter of vehicles, as high as 39 per cent water is used in lieu of linseed oil, which is the life of paint. It also shows lead purchased on the market, labeled "white lead"; also "pure white lead," that does not contain, in some instances, any lead at all, and in others from 14 to 50 per cent.

Senator KENYON. You can leave those with the committee.

Mr. DEWAR. Yes, sir. They are all checked off.

(Extracts from the documents referred to are marked "Exhibits 4, 5, and 6," and are here printed in full, as follows:)

EXHIBIT 4.

Lab. No. 516. Royal white lead. E. P. & V. Co., M. B. Cochran, president, Pittsburgh, Pa. Net weight, 24 pounds 5 ounces.)

ANALYSIS OF PIGMENT.		Per cent.
White lead.....		43.32
Lead sulphate.....		.54
Zinc oxide.....		11.60
Barium sulphate.....		42.28
Silica and silicate.....		1.67
Undetermined.....		.59
Total.....		100.00

The term "Royal white lead" should indicate a good product; that is, some special brand of pure white lead; but the analysis does not bear out this conclusion, for less than half of the product is white lead, and it is largely adulterated with barytes.

EXHIBIT 5.

(1075. Ready-mixed paint, outside white. W. L. Klingenhofer, Pittsburgh, Pa.)

	Per cent.
Pigment.....	64.52
Vehicle.....	35.48
Total.....	100.00

ANALYSIS OF VEHICLE.		
Linseed oil.....		94.06
Benzine.....		5.94
Total.....		100.00

ANALYSIS OF PIGMENT.

	Per cent.
Zinc oxide, ZnO.....	30.60
Sublimed lead, PbSO ₄	24.86
Sublimed lead, PbO.....	6.26
Calcium carbonate, CaCO ₃	3.37
Aluminum oxide, Al ₂ O ₃	1.74
Barytes, BaSO ₄	6.31
Mag. silicate and undetermined.....	26.86
Total.....	100.00

EXHIBIT 6.

(1077. White lead, said to be Bridgeport standard white lead, prepared by Bridgeport Wood Finishing Co., Bridgeport, Conn.)

	Per cent.
Silica and silicates.....	32.87
Sublimed lead, PbSO ₄	28.14
Sublimed lead, PbO.....	3.11
Zinc oxide, ZnO.....	35.12
Undetermined.....	0.76
Total.....	100.00

The circular accompanying the above states: "Bridgeport standard white lead is not a new product, but has been on the market for over 40 years."

They say further: "We use a mixture of carbonate of white lead, pure oxide of white zinc, especially prepared pure floated white silix, and pure linseed oil."

Analysis does not indicate that any true white lead has been used in this preparation.

Again they say: "The combination we use has been proved by exhaustive tests, made by the Government and leading paint manufacturers and chemists, to be the best, judged by spreading, covering, and lasting qualities."

They further state: "Bridgeport standard white lead is the most economical white lead on the market."

To say the least, there is considerable exaggeration. A good paint law would insure valuable information to the purchaser and place all manufacturers on the same basis.

The CHAIRMAN. You introduced those two documents in evidence?

Mr. DEWAR. Yes, sir.

The CHAIRMAN. Have you examined them?

Mr. DEWAR. I have.

The CHAIRMAN. Are the statements and conclusions in them correct in your opinion?

Mr. DEWAR. So far as I have any knowledge of the matter, Dr. Ladd being a very eminent paint chemist and any analysis that he puts out is received by all paint manufacturers and painters as being absolutely correct.

The CHAIRMAN. Who got these two documents up?

Mr. DEWAR. Commissioner Ladd, of North Dakota.

Senator KENYON. We will have them as exhibits.

Mr. DEWAR. Yes; they show the water and barytes in place of lead. I have three letters here. They are of a personal character from commissioners, and I would like to read extracts from them. Here is one from Wyoming; this is from the commissioner of Wyoming:

I have not had an opportunity to go into this matter very extensively, but have gone into it enough to satisfy myself that this State is a dumping ground for about all the adulterated oil, turpentine, white lead and paint that are in the country. At the last session of the legislature I made a great effort to get a bill through that would afford us protection, but there was evidently some strong influence against it, and it failed to pass.

Now, this is from the commissioner of South Carolina. He says:

I beg to say that many citizens of this State are repeatedly complaining of the inferior quality of the linseed and other paints oils and paints that have been sold to them in the markets of the State.

This is from the commissioner of Ohio:

The linseed oil and turpentine statutes are very satisfactory, while the one bearing upon paint is of very little account.

Mr. DEWAR. Now, the reason for that, Senators, is this: There was a law passed in Ohio three years ago, a paint law for the protection of the consumers of paint that contained the analysis label just as it is set forth in the Kenyon paint bill, but the enforcement of that law was delayed from month to month, until a new session of the legislature was held, when that clause—the saving clause of that bill—was eliminated. Therefore, the commissioners say it is of very little consequence, and I want to say that without the formula-label clause of this bill being part of the bill, the paint portion of it is of no consequence whatsoever.

The CHAIRMAN. You said, “the saving clause” of that bill was stricken out. What do you mean by the saving clause?

Mr. DEWAR. May I read section 8 here?

The CHAIRMAN. Yes.

Mr. DEWAR [reading]:

That the label required by this act shall clearly and distinctly state the name and residence of the manufacturer of the paint or the distributor thereof, or of the party for whom the same is manufactured, and show the name, and with substantial accuracy, the percentage of each ingredient, both solid and liquid, contained therein as the same would be disclosed by an ordinary chemical analysis.

That is what you call “the saving clause”?

Mr. DEWAR. That is the meat of the whole bill.

The CHAIRMAN. But I say it is what you call the “saving clause”?

Mr. DEWAR. The saving clause.

The CHAIRMAN. I simply want to get the record so that it means something. That is what they struck out there?

Mr. DEWAR. Yes, sir.

The CHAIRMAN. And you say that made the bill worthless?

Mr. DEWAR. Worthless; and the same in Pennsylvania at the last meeting of the legislature. The bill presented there was practically the Kenyon paint bill, and to get it on the statute it was necessary to eliminate that saving clause, and to-day the bill is worthless as a protection to consumers of paint in the State of Pennsylvania.

The CHAIRMAN. Now, it seems to me, you are arguing something outside of what concerns us very much.

Senator KENYON. Yes; I wish you would get down to a few fundamentals. How will this bill, in your judgment, protect the consumer?

Mr. DEWAR. The bill as set forth will protect the consumer of linseed oil, turpentine, and paint from those manufacturers who adulterate.

Senator KENYON. That is the whole thing; who adulterate?

Mr. DEWAR. And substitute ingredients other than lead, oil, and turpentine.

Senator KENYON. How does this adulteration affect the consumer? Here is a farmer with a house. He buys his paint and paints his house. As it now exists, how long will that paint last

under this bill? If he secures the paint and this bill were in force and effect, how long would it last?

MR. DEWAR. First, the master painter goes into the market and purchases his white lead. In a great many instances he is practically buying a pig in a poke, because he can not tell a thing by the looks of the lead. He just simply pays his money for what he thinks is white lead, and frequently it is not white lead at all, but simply barytes. He goes ahead and paints the house. Barytes is an inert matter. It does not absorb oil. When the sun comes and dries up the oil, you can brush the paint off within a year or two, where, if pure lead had been used and pure linseed oil, that house would stand from five to six years before it would require repainting.

SENATOR KENYON. Then, this generally adulterated paint that is used lasts about half the time that pure paint would?

MR. DEWAR. We find——

THE CHAIRMAN. What do you say in answer to the Senator's question?

SENATOR KENYON. My question is, this adulterated paint lasts just about half as long a time?

MR. DEWAR. Yes, sir.

SENATOR KENYON. And is sold as pure paint?

MR. DEWAR. Yes, sir.

SENATOR KENYON. That is where the fraud comes in?

MR. DEWAR. That is where the fraud comes in. Now, the farmers and agriculturists, who are the large consumers of mixed paints, do largely their own painting. They go to their dealers and buy mixed paint. In many instances those mixed paints are shown to contain as high as 39 and 40 per cent of water in lieu of linseed oil. Within a year that paint will break down and permit the moisture and the rain to penetrate into the wood.

SENATOR KENYON. Now, under the prohibitions in this bill that kind of paint could not be shipped in interstate commerce?

MR. DEWAR. Yes, they can ship it, but the man will see on the label that that paint contains from 10 to 39 per cent of water.

SENATOR KENYON. It could not be shipped without a label showing what it was or what its ingredients were?

MR. DEWAR. No, sir; it could not. Therefore the analysis label is the saving clause of the bill.

SENATOR KENYON. Can you give us any idea of the amount expended in painting in this country in a year, and how much this fraud amounts to?

MR. DEWAR. No, sir; I could not.

SENATOR KENYON. It is very enormous, is it not?

MR. DEWAR. Oh, there is no question about that.

THE CHAIRMAN. To what extent are these substituted articles or this—I will call it for the sake of a term—fraudulent paint used?

MR. DEWAR. Very, very large.

THE CHAIRMAN. Well, is it 10 per cent, 20 per cent, 50 per cent or 100 per cent—what is it?

MR. DEWAR. I would say 50 per cent at the very least.

SENATOR KENYON. There are some pure standard paints, are there not?

MR. DEWAR. By all means.

SENATOR KENYON. Are these people objecting to this bill, the manufacturers of pure paint?

Mr DEWAR. No, sir; here is a list of the leading manufacturers in this country who are to-day labeling all their materials in conformity with the Kenyon paint bill. There are a number of States that have paint laws.

(The paper referred to is marked "Exhibit 7" and is here printed in full, as follows:)

EXHIBIT 7.

PAINT MANUFACTURERS WHO AT PRESENT LABEL THEIR PAINTS AND COLORS IN CONFORMITY WITH FULL REQUIREMENTS OF KENYON PAINT BILL.

Heath & Milligan Manufacturing Co., Chicago, Ill.
Acme White Lead & Color Works, Detroit, Mich.
Lincoln Paint & Color Co., Lincoln, Nebr.
Campbell Paint & Glass Co., St. Louis, Mo.
Patton Paint Co., Milwaukee, Wis.
Sherwin-Williams Paint Co., Cleveland, Ohio.
W. W. Lawrence & Co., Pittsburgh, Pa.
Harrison Bros. Co., Philadelphia, Pa.
John W. Masury & Son, Brooklyn, N. Y.
National Lead Co., New York, N. Y.

STATES HAVING PAINT LAWS IN FORCE.

North Dakota.	Minnesota.	California.
South Dakota.	Massachusetts.	Pennsylvania.
Nebraska.	Ohio.	Wisconsin.
Iowa.	Vermont.	

The CHAIRMAN. Does that include all the names; are all the names on that paper the names of concerns that have labeled their paints?

Mr. DEWAR. They are not all there.

The CHAIRMAN. No; but are all that are there of that character?

Mr. DEWAR. Yes, sir; all of them label their paints in conformity with the Kenyon paint law.

Senator KENYON. Have you some exhibits here showing the various linseed oils?

Mr. MACNICHOL. I will say——

Senator KENYON. Suppose you give your name and business?

STATEMENT OF CHARLES MACNICHOL, 428 TENTH STREET, WASHINGTON, D. C.

Mr. MACNICHOL. My name is Charles Macnichol. I am a master painter. I do the work around these hill-top buildings and have for the last 20 years.

We claim the right to know by this form of labeling what we are buying and to know what they are going to make us pay for it. We have no knowledge of what is contained in the can until we see the formula on the can, and if there is a law that forces them to put a correct formula on the can we will know what we are buying. You can not buy paint like you can a piano or a horse or anything that you can examine. You buy it and put it on and do not know for six months afterwards whether you have been swindled or not.

Senator KENYON. Is there any paint manufactured in the District of Columbia?

Mr. MACNICHOL. No, sir.

The CHAIRMAN. Let me ask you a question for the sake of the record. If I understand you aright, they make these paints with adulterated oil and with substituted or adulterated materials, so that

when they are fresh the difference between the genuine article and the adulterated article can not be discovered by a good painter?

Mr. MACNICHOL. No, sir; not unless he has a chemical examination made.

The CHAIRMAN. The only way to determine would be by a chemical examination?

Mr. MACNICHOL. Yes, sir.

The CHAIRMAN. And what you want is to have the manufacturer of paint, if he ships it in interstate commerce, compelled to put on his can or holder, whatever it is, a plain label which will disclose what the paint is, so that if a man wants to buy a cheap adulterated article he can buy it?

Mr. MACNICHOL. Yes, sir.

The CHAIRMAN. But he knows what he is buying?

Mr. MACNICHOL. Yes, sir.

The CHAIRMAN. If he wants a first-class paint—that is, if he wants paint with pure oil and pure turpentine and pure lead, or any other ingredient, and wants to pay for it—he knows he is going to get it. That is what you want?

Mr. MACNICHOL. He has a guaranty of what he is buying.

The CHAIRMAN. And you see that the imitations are so cleverly made that without a chemical analysis they could not be discovered when they are first purchased or put on. Now, can you tell afterwards?

Mr. MACNICHOL. Yes, sir; by wear and durability. They disintegrate.

The CHAIRMAN. That is the bad ones, or spurious ones, disintegrate?

Mr. MACNICHOL. Yes, sir.

STATEMENT OF JOHN J. DEWAR—Resumed.

Mr. DEWAR. Here [indicating] are four samples that were purchased in the open market, and I defy any man, painter or manufacturer, to look at these and state which is pure lead and which is lead that is altogether spurious.

Senator KENYON. That has just been put on, has it not?

Mr. DEWAR. Yes, sir.

The CHAIRMAN. You say that the fresh paints on the tablet that you have put in are the paints that appear here on this exhibit?

Mr. DEWAR. Yes, sir.

Senator KENYON. Is one of them pure lead?

Mr. DEWAR. Yes, sir; one is pure lead.

Senator KENYON. And you have shown here which is pure lead?

Mr. DEWAR. Yes, sir; but otherwise you could not have told. This [indicating] is 94 per cent barytes.

Senator KENYON. What is barytes?

Mr. DEWAR. It is pulverized rock, having about the same weight as lead—94 per cent barytes and 6 per cent zinc oxide, and to look at it, no man living can tell.

The CHAIRMAN. Which one is that?

Mr. DEWAR. No. 1.

The CHAIRMAN. You say No. 1 is lead?

Mr. DEWAR. No, sir; not lead. No man living, without a chemical analysis, could tell whether that was pure lead or what it was, or what ingredients it was composed of.

The CHAIRMAN. No. 1 on this tablet that you have prepared has no lead in it at all?

Mr. DEWAR. Not any.

The CHAIRMAN. And you say it is made of what?

Mr. DEWAR. Ninety-four per cent barytes and 6 per cent zinc oxide.

The CHAIRMAN. Now, what is barytes?

Mr. DEWAR. Barytes is pulverized or ground rock.

The CHAIRMAN. How long will that kind of paint last?

Mr. DEWAR. If pure linseed oil is used, it may last for two years.

If linseed oil adulterated largely with petroleum oil is used, it would not last a year.

The CHAIRMAN. If No. 1 was good white lead and pure linseed oil was used, how long ought it to last?

Mr. DEWAR. It would last from five to six years without repainting.

The CHAIRMAN. Now we come to No. 2

Senator KENYON. Before you leave that, let me ask: Suppose a person is going to buy and No. 1 is given him, will he pay the same as for No. 3?

Mr. DEWAR. Yes, sir; I paid white-lead prices—I bought a keg myself in Pittsburgh which was manufactured in St. Louis. I bought it in Pittsburgh in the open market and had it analyzed.

The CHAIRMAN. Now, we will come to No. 2, which you say on this tablet, which we will have marked now "Exhibit 8," has 14 per cent of lead. What are the other substances making up the 86 per cent? There ought to be put on there so much lead and so much barytes, etc.

Mr. DEWAR. I put it down there as 14 per cent to give the manufacturer the full value. The correct analysis is 13.8. Here [indicating] is the full analysis.

The CHAIRMAN. Will you put on the back of Exhibit 8 the correct analysis of each of these specimens shown on Exhibit 8?

Mr. DEWAR. Yes, sir; I will give it to the stenographer.

The CHAIRMAN. In that completed form, putting it right on the back of this tablet—you will give it to the stenographer?

Mr. DEWAR. Yes, sir.

(The paper referred to, marked "Exhibit 8," is here printed in full, as follows:)

EXHIBIT 8.

Sample No. 1, branded "Climax white lead":	Per cent.
Barytes.....	94
Zinc oxide.....	6
Total.....	100
Sample No. 2, branded "Pure white lead":	
White lead.....	13. 08
Lead sulphate.....	. 38
Zinc oxide.....	35. 62
Zinc sulphide.....	1. 10
Barium sulphate.....	40. 96
Silica and silicates.....	7. 72
Undetermined.....	1. 14
Total.....	100. 00
Sample No. 3, branded "Pure white lead":	
White lead.....	99. 22
Undetermined.....	. 78
Total.....	100. 00

Sample No. 4, branded "Standard white lead":	Per cent
Silica and silicates.....	32. 87
Sublimed lead, PbSO_4	28. 14
Sublimed lead, PbO	3. 17
Zinc oxide, ZnO	35. 12
Undetermined.....	. 70
Total.....	100. 00

The CHAIRMAN. Now, without going into the details, as to what is in it, how long will No. 2 last?

Mr. DEWAR. It may last for three years. It is largely dependent upon the oil that is used in conjunction with it.

The CHAIRMAN. Now, take No. 3, which is marked "Pure lead." How long will that last?

Mr. DEWAR. From five to six years.

The CHAIRMAN. We will take No. 4, which is said to be 35 per cent lead. How long will that last?

Mr. DEWAR. I should say from four to five years, all depending upon the oil—if it is a good linseed oil and not adulterated, or mineral oil, fish oil, or corn oil.

The CHAIRMAN. Now, suppose you put that adulterated oil with pure lead, what would be the result?

Mr. DEWAR. It would disintegrate much quicker than if linseed oil were used.

The CHAIRMAN. So there are two things that enter into the permanency of this good paint.

Mr. DEWAR. Yes, sir.

The CHAIRMAN. First, the purity of the paint itself—

Mr. DEWAR. Yes, sir; of the pigment.

The CHAIRMAN. Well, the pigment by which you mean the solid matter; that makes up the paint.

Mr. DEWAR. Yes, sir.

The CHAIRMAN. And, secondly, the element is the purity of the oil?

Mr. DEWAR. Yes, sir.

The CHAIRMAN. Do you have the same difficulty with spurious oils that you have with spurious paints?

Mr. DEWAR. We do. To-day the name "Pure spirits of turpentine" is practically a misnomer. It is so largely adulterated with mineral spirits, and it is so finely executed, that you and I could not tell any more than we could tell barytes from white lead by looking at it. Linseed oil is so adulterated to-day with mineral oil and corn oil, fish oil, and other oils that we can not tell it without a chemical analysis.

I wish to place on record another exhibit. During the hearing on the Heyburn bill, which was a similar paint bill to this, a statement was made about the adulterated leads found in the market. Mr. Walker, of the Agricultural Department, who has just entered the room here, was instructed by Senator Heyburn to go into the markets and procure samples of paints and lead in the markets of Washington and Baltimore. Among his purchases he procured 12 samples of lead and had them analyzed in his department, and but 2 of those samples proved to be pure. This [indicating] is what the Government sent me, and I have a condensed statement of it here that I will place in the record as an exhibit.

The CHAIRMAN. The Government sent you a statement of this analysis that was made by Mr. Walker or under his supervision?

Mr. DEWAR. Yes, sir.

The CHAIRMAN. And you have condensed this statement in the document which is marked "Exhibit 9"?

Mr. DEWAR. Yes, sir.

The CHAIRMAN. That will be inserted in the record and marked "Exhibit 9."

(The paper referred to and marked "Exhibit 9" is here printed in full, as follows:)

EXHIBIT 9.

United States Senator Heyburn, during a hearing of a paint bill, before the United States Senate, instructed Dr. P. H. Walker, of the Agricultural Department, to make a report of conditions of paints as found by him in the market. He bought in the open markets of Washington and Baltimore a number of paints, which he analyzed and reported results to Senate Committee. Among them were 12 cans of lead labeled "White Lead" and "Pure White Lead." From his report you will observe that only two of them were pure lead, the balance largely adulterated and a number not showing any white lead. His report in part is here given, which speaks for itself. As to the deplorable paint conditions, which are found general outside of States not having pure paint laws requiring the formula label on all packages.

(The analysis referred to and marked "Exhibit 10" is here printed in full, as follows:)

EXHIBIT 10.

Analyses of white leads bought in the open market in Washington and Baltimore.

Claim on label.	Probable composition (per cent).	Price paid.	Per cent profit.
White lead in oil.....	Pure white lead in linseed oil.....	\$0.12	82.9
White lead ground in linseed oil.....	White lead..... 2	.10	226.8
	Zinc white (western)..... 32		
	Barium sulphate..... 65		
	Calcium sulphate..... 1		
	In linseed oil.		
Now white lead ground in pure linseed oil..	White lead..... 9	.10	298.4
	Zinc lead..... 11		
	Barium sulphate..... 80		
	In linseed oil.		
White lead ground in prepared linseed oil...	White lead..... 1	.10	318.4
	Zinc white..... 14		
	Barium sulphate..... 75		
	Calcium sulphate..... 10		
	In linseed oil.		
White lead warranted ground in refined linseed oil.	White lead..... 1	.10	446.4
	Zinc lead..... 6		
	Barium sulphate..... 93		
	In linseed oil.		
White lead ground in pure linseed oil.....	White lead..... 1	.08	226.5
	Zinc white..... 20		
	Barium sulphate..... 79		
	In linseed oil.		
White lead in oil.....	Pure white lead in linseed oil.....	.10	68.5
White lead ground in refined linseed oil....	White lead..... 28	.10	109.6
	Leaded zinc..... 39		
	Barium sulphate..... 28		
	Calcium sulphate..... 5		
	In linseed oil.		
White lead ground in pure linseed oil.....	Zinc white..... 20	.09	279.7
	Barium sulphate..... 80		
	In linseed oil.		
Pure white lead warranted superior to any in the market, made of the best and purest materials.	Zinc white..... 7.0	.10	463.4
	Silica..... 7.0		
	Whiting..... 6.0		
	Barium sulphate..... 80.0		
	In linseed oil.		

Analyses of white leads bought in the open market in Washington and Baltimore—Con.

Claim on label.	Probable composition (per cent).	Price paid.	Per cent profit.
White lead.	Zinc white. 36.0 Silica. 5.0 Barium sulphate. 59.0 In linseed oil.	\$0. 10	209. 1
Pure white lead in oil.	Zinc white (western). 13.0 Calcium sulphate. 5.0 Whiting. 2.0 Barium sulphate. 80.0 In linseed oil.	. 10	365. 1

Mr. DEWAR. Now, No. 1 was——

The CHAIRMAN. What are you doing now, recapitulating what you have said?

Mr. DEWAR. Yes, sir.

The CHAIRMAN. There is no use reading it.

Mr. DEWAR. But I am afraid you Senators will not read it.

The CHAIRMAN. There are two Senators listening to you now.

Mr. DEWAR. There are many of them that contain no lead at all, and it shows up as high as 400 per cent. Lead at that time was selling at 7 cents per pound on the market.

The CHAIRMAN. In this market here the price paid was 12 cents.

Mr. DEWAR. I know, but the right price of lead on the market generally was 7 cents a pound.

Mr. MACNICHOL. The difference in that price is in the package in which it was bought. Probably a 1-pound can would be 12 cents when a hundred pound or a 500-pound can would be 7½ cents.

The CHAIRMAN. Let me ask for an explanation of this Exhibit 10. You have here in the right-hand column "Per cent profit." How did you get at that?

Mr. MACNICHOL. I think that Mr. Walker can answer that better than anyone else.

The CHAIRMAN. Well, we will let Mr. Walker answer it.

Mr. WALKER. They are arbitrarily calculated. I do not remember the full details of the matter at the present time, as it has been a good many years ago, but it was arbitrarily calculated from the assumed value, which we believed to be about correct, of the ingredients that went into the contents of the can. We made a certain assumption which I think is in the original report, that white lead was worth so much, say 6½ or 7 cents a pound—whatever we accepted—and that barytes was worth, say, three-quarters of a cent per pound.

The CHAIRMAN. You are right here in the city?

Mr. WALKER. Yes, sir; I am in the Bureau of Standards.

The CHAIRMAN. I will state that I am going to continue this hearing until next week in order that the other side may appear. They have sent in requests to be heard. I had a notice over the phone a little while ago through Senator James, and probably we will want you to be present at that time.

Mr. WALKER. I will state that I am not on either side.

The CHAIRMAN. I know. You are not on either side, but these gentlemen here are on one side and the gentlemen who will come are on the other side, and you being a Government official, we will want you to be present when they are all here.

Mr. WALKER. Dr. Stratton instructed me to state to you that he was very sorry that he could not get out, and he sent me here.

The CHAIRMAN. Now, let me ask you a question, Mr. Dewar. Are you through with the lead business, as far as you are concerned?

Mr. DEWAR. Yes, sir; I wish to place on file as an exhibit these labels as proof that these people whom I have designated, label their goods in conformity with the requirements of this bill.

(The papers referred to and marked "Exhibits 11 to 27," inclusive, are here printed in full, as follows:)

EXHIBIT 11.

The Lawrence colors. Refined lamp black. Ground in pure linseed oil. W. W. Lawrence & Co., Pittsburgh. 12½ lbs. The manufacturer's signature is placed only on their best brand. No. 302, carbon, 100 per cent. Ground in pure linseed oil. W. W. Lawrence & Co.

EXHIBIT 12.

Masury's liquid colors. The best in the world. White. Warranted pure linseed-oil paint. John W. Masury & Son, New York and Chicago. Half gallon U. S. standard.

COMPOSITION.

Paint:		
Pigment.....	60.5%	
Vehicle.....	39.5%	
	100	%
Pigment:		
Zinc oxide.....	55	%
Basic lead carbonate.....	45	%
	100	%
Vehicle:		
Linseed oil.....	88.0%	
Turpentine dryer.....	12.0%	
	100	%
White ½.		

EXHIBIT 13.

Heath & Milligan Mfg. Co. Best prepared paint. Pearl gray. Chicago. One U. S. Standard ¼ gallon.

	Total.	Pigment.	Liquid.
White base*.....	60.60%	99.88%	.....
Coloring matter**.....	.07%	.12%	.....
Linseed oil.....	34.69%	.....	88.21%
Turpentine.....	1.55%	.....	3.95%
Japan.....	1.57%	.....	4.00%
Petroleum spirits.....	.79%	.....	2.00%
Water.....	.73%	.....	1.84%
	100.00%	100.00%	100.00%

* WHITE BASE.

Lead carbonate.....	19.26%
Lead sulphate.....	19.16%
Zinc oxide.....	46.58%
Barium sulphate.....	10.00%
Calcium carbonate.....	5.00%
	100.00%

** Coloring matter: Lamp black—carbon.

EXHIBIT 14.

Masury's pure colors. Ground in pure linseed oil. 1 lb. Prussian blue. Warranted superior to any in the market. Manufactured only by John W. Masury & Son, New York & Chicago. Beware of imitations. None genuine unless bearing the signature of John W. Masury & Son.

COMPOSITION.

Paint:	
Pigment.....	44 %
Vehicle.....	56 %
	<hr/>
Pigment, ferric ferrocyanide.....	100 %
Vehicle:	100 %
Linseed oil.....	94 %
Turpentine dryer.....	6 %
	<hr/>
98.....	100 %

EXHIBIT 15.

Trade-mark registered. Boston prepared paint. The Acme Quality kind. Paints, enamels, stains, varnishes. 209. Ivory. Trade-mark reg. U. S. Pat. Off.

DIRECTIONS.

To secure the best results, stir the paint thoroughly. After opening the can pour off all the oil that has risen to the top into another vessel. Take a square-end paddle and break up the pigment until it is smooth and of uniform consistency. Then add the oil gradually which you have previously poured off, stirring constantly.

Paint spreads more readily in warm weather. In cold weather extra care must be taken to brush out thoroughly. The best results are secured in a temperature between 50 and 70 degrees.

When possible choose a clear, dry day for painting. Never apply paint in damp weather, as surface to be painted may be charged with moisture. Under such conditions paint will not dry well and unsatisfactory results are apt to follow.

Coat all knots or sappy and gummy places in the wood with shellac varnish before applying the paint.

Putty all nail holes and cracks after priming coat is dry.

The undercoats should be perfectly dry and hard all the way through before next coat is applied.

If it is necessary to thin the paint, use pure raw linseed oil for outside work and turpentine for inside work.

Caution: The contents of this package are inflammable and must not be exposed near a flame or intense heat.

PERFECT FINISHES FOR ALL SURFACES.

If it's a surface to be painted, enameled, stained, varnished, or finished in any way, there's an Acme Quality kind to fit the purpose. For the best results from painting and finishing materials insist that the Acme Quality trade-mark be on the label.

Acme White Lead and Color Works. Factories: Detroit, Boston, Los Angeles.

Boston prepared paint (Acme Quality) (Acme Quality). One quart U. S. measure No. 209 ivory.

Analysis.

	Weight.	Pigment.	Vehicle.	Total.
Pigment.....	59.46%			
White lead, carbonate.....		11.91%		7.08%
White lead, sulphate.....		26.57%		15.80%
Zinc oxide.....		29.00%		17.24%
Calcium carbonate.....		11.71%		6.96%
Magnesium silicate.....		19.84%		11.80%
French ochre ¹.....		.97%		.58%
Vehicle.....	40.54%			
Linseed oil.....			75.27%	30.51%
Reducing oil japan.....			23.57%	9.56%
Water.....			1.16%	.47%
	100.00%	100.00%	100.00%	100.00%

¹ Ferric oxide, 20%; silica, 80%.

EXHIBIT 16.

Trade mark registered. New Era paint. The Acme Quality kind. Paints, enamels, stains, varnishes. Outside white. Trade mark Reg. U. S. Pat. Off.
New Era paint (Acme Quality). One quart U. S. measure. Outside white.

Analysis.

	Weight.	Pigment.	Vehicle.	Total.
Pigment.....	64.76%			
White lead carbonate.....		60.00%		38.85%
Zinc oxide.....		30.00%		19.43%
Calcium carbonate.....		5.00%		3.24%
Magnesium silicate.....		5.00%		3.24%
Vehicle.....	35.24%			
Linseed oil.....			83.56%	29.44%
Japan.....			13.04%	4.60%
Water.....			3.40%	1.20%
	100.00%	100.00%	100.00%	100.00%

DIRECTIONS—OUTSIDE WHITE.

Caution.—This paint is very heavy bodied and directions must be followed to secure satisfactory results.

For new work.—Shellac all knots and sappy places.

Priming: Add a gallon of pure raw linseed oil for each gallon of white.

Putty all nail holes after priming coat is dry.

Second coat: Add to each gallon of paint one and one-half to three pints of pure raw linseed oil and one-half to one pint of pure turpentine—enough to cut the gloss. Reducing in this manner enables the following coat to adhere more firmly and prevents crawling.

Third coat: Add one quart of pure, raw linseed oil for each gallon of paint.

For old work.—Remove all loose paint.

First coat: If surface has not been painted for some time and is very porous, add one gallon of pure raw linseed oil for each gallon of white. If surface is smooth and hard, add three pints of pure raw linseed oil and one pint of pure turpentine. The latter to prevent crawling of following coat.

Second coat: If this is the finishing coat, add one quart of pure raw linseed oil for each gallon of white. If another coat is to be applied over this, add one pint of pure raw linseed oil and one pint of pure turpentine.

Stir the white thoroughly before adding oil. When it is of an even consistency from top to bottom add the oil and stir well until properly mixed. Pouring back and forth from one can to another is recommended.

Caution: The contents of this package are inflammable and must not be exposed near a flame or intense heat.

Acme White Lead and Color Works, Detroit, Mich., and Boston, Mass., U. S. A.

DONT'S.

Don't fail to shellac all knots and sappy places before applying paint.

Don't apply paint in damp weather or upon green lumber or upon surfaces covered with frost, dew, or saturated with moisture, as steam and gases will form and in escaping force off the paint.

Don't apply one coat over another until the under coat is hard all the way through, not simply hard on the surface. Take more time and do work that will last.

Don't stop brushing because paint looks smooth. Rub out thoroughly.

Don't use boiled linseed oil in New Era paint; use raw, and it must be pure.

Don't try to cover with one or two coats if three are necessary. Paint applied too thick will not stay.

Don't forget that paint spreads more readily in warm weather. In cold weather extra care must be taken to brush out thoroughly. For best results the temperature should be between 45 and 80 degrees.

Don't use ochre priming. The materials in it are usually injurious and will destroy the life of after coats of pure paint. To insure durability the foundation must be of consistent quality.

PERFECT FINISHES FOR ALL SURFACES.

If it's a surface to be painted, enameled, stained, varnished, or finished in any way, there's an Acme quality kind to fit the purpose. For the best results from painting and finishing materials insist that the Acme Quality trade-mark be on the label.

EXHIBIT 17.

Harrisons' Green Seal zinc ground in refined linseed oil. Harrison Bros. & Co. (Inc.). Paint, colors, varnish, white lead, chemicals. Philadelphia and Chicago. Pure H zinc.

COMPOSITION.

Zinc oxide (Green Seal).....	85%
Linseed oil.....	15%
922-1-10	100%

EXHIBIT 18.

Harrisons' Town & Country paint. Ready for use. For outside and inside surfaces. 1038. One quart U. S. standard measure. Harrison Bros. & Co. (Inc.). Paint, colors, varnish, white lead, chemicals. Philadelphia and Chicago. 1793. H. Trade-mark reg. U. S. Pat. Off.

Composition.

	Total.	Pigment.	Vehicle.
Pigment, 63%:			
White base ¹	60%	95.6%	
Coloring material ²	3%	4.4%	
Vehicle 37:			
Linseed oil.....	32%		86.5%
Japan drier.....	3%		8.1%
Asphaltum spirits.....	2%		5.4%
1038-7-14	100%	100.0%	100.0%

¹ WHITE BASE.

Basic carbonate—white lead.....	45.2%
Zinc oxide.....	38.7%
Calcium carbonate (Paris white).....	9.7%
Magnesium silicate (Asbestine).....	6.4%

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² COLORING MATERIAL.

Ochre:	
Ferric oxide.....	20%
Natural silicates, etc.....	80%
Raw umber:	
Ferric oxide.....	47%
Manganese dioxide.....	11%
Natural silicates, etc.....	42%
Pure chrome yellow.	

DIRECTIONS FOR USING HARRISON'S "TOWN & COUNTRY" PAINT.

Shake the package well before opening. Stir the contents until thoroughly mixed. The surface should be thoroughly dry and free from dust and dirt before any paint is applied.

Cover all knots and sappy places with pure shellac.

On new work for priming thin to the proper consistency, using pure, raw linseed oil and a little pure turpentine; after this coat is dry, putty all nail holes and surface imperfections. For second coat, thin as above, but do not add as much oil and turpentine. For third coat, use as furnished, unless found to be too heavy for brushing, in which case pure linseed oil only should be added.

For two-coat work, follow directions as given for second and third coat.

Thoroughly brush out the paint.

Each coat must be thoroughly dry and hard before applying another coat.

The best results can be obtained by employing a first-class painter.

EXHIBIT 19.

Masury's pure colors. Ground in pure linseed oil. Refined lampblack. Warranted superior to any in the market. Manufactured only by John W. Masury & Son, New York, Chicago, Minneapolis, and Kansas City. Beware of imitations. None genuine unless bearing the signature of John W. Masury & Son.

23-69-F.

COMPOSITION.

Paint:		
Pigment.....		34%
Vehicle.....		66%
		100%
Pigment:		
Carbon.....		99.5%
Ash.....		— .5%
		100%
Vehicle: Boiled linseed oil.....		100%
96.		

DIRECTIONS FOR OPENING THE PATENT CAN.

Pierce the thin tin top near the outer edge with the point of a knife. Then turn the knife so that the blade will occupy a horizontal position. The thin tin may then be easily cut, leaving a smooth edge.

EXHIBIT 20.

Harrisons' Town & Country Paint. Ready for use. For outside and inside surfaces.

41. One quart U. S. standard measure. Harrison Bros. & Co. (Inc.). Paint, colors, varnish, white lead, chemicals. Philadelphia and Chicago. 1793. H. Trade mark.

Reg. U. S. Pat. 019.

Composition.

	Total.	Pigment.	Vehicle.
Pigment 54%:			
White base ¹	51%	94.3%	
Coloring material ²	3%	5.7%	
Vehicle 46%:			
Linseed oil.....	41%		89.2%
Japan drier.....	3%		6.5%
Asphaltum spirits.....	2%		4.3%
141-6-13.....	100%	100.0%	100.0%

¹ WHITE BASE.

Basic carbonate—White lead.....	30%
Zinc oxide.....	56%
Barium sulphate (Blanc fixe).....	12%
Magnesium silicate (Asbestine).....	2%
141.....	100%

² COLORING MATERIAL.

Ochre:	
Ferric oxide.....	20%
Natural silicates, etc.....	80%
Burnt sienna:	
Ferric oxide.....	71%
Natural silicates, etc.....	29%
Manganese dioxide.....	Trace.
Bone black:	
Carbon.....	15%
Natural phosphates.....	85%
Lamp black carbon.....	

DIRECTIONS FOR USING HARRISONS' "TOWN & COUNTRY" PAINT.

Shake the package well before opening. Stir the contents until thoroughly mixed. The surface should be thoroughly dry and free from dust and dirt before any paint is applied.

Cover all knots and sappy places with pure shellac.

On new work for priming thin to the proper consistency, using pure raw linseed oil and a little pure turpentine. After this coat is dry putty all nail holes and surface imperfections. For second coat thin as above, but do not add as much oil and turpentine. For third coat use as furnished unless found to be too heavy for brushing, in which case pure linseed oil only should be added.

For two-coat work follow directions as given for second and third coat.

Thoroughly brush out the paint.

Each coat must be thoroughly dry and hard before applying another coat.

The best results can be obtained by employing a first-class painter.

EXHIBIT 21.

Radium White. W. W. Lawrence & Company, Pittsburgh. Radium White is guaranteed to be a high-grade combination white. The pigments are prepared in the proper proportions and carefully mixed and ground in strictly pure refined linseed oil. Radium White is very white, very fine, and possesses extraordinary covering qualities.

Lead sulfate.....	21%
Zinc oxide.....	39%
Barium sulfate.....	40%
	100%

EXHIBIT 22.

The Lawrence colors. Deep tuscan red. Ground in pure linseed oil. W. W. Lawrence & Co., Pittsburgh. 1 lb. net. The manufacturer's signature is placed only on their best brand. W. W. Lawrence & Co.

DEEP TUSCAN RED

erric oxide.....	26.00%
alcium carbonate.....	28.10%
arium sulphate.....	22.30%
Alizarine lake.....	23.60%
Total.....	100.00%
Alizarine lake.....	25%
arium sulphate.....	75%
Total.....	100%
Ground in pure linseed oil.	

EXHIBIT 23.

The Lawrence colors. Imported venetian red. Ground in pure linseed oil. W. W. Lawrence & Co., Pittsburgh. 12½ pounds net. The manufacturer's signature is placed only on their best brand. W. W. Lawrence & Co.

NO. 379. IMPORTED VENETIAN RED.

erric oxide.....	67.05%
luminum oxide.....	5.10%
alcium sulphate.....	.59%
ilica.....	27.26%
Total.....	100.00%
Ground in pure linseed oil.	

EXHIBIT 24.

Patton's sun-proof liquid (Patton's sun-proof paints) paints. One gallon. U. S. measure. Registered in U. S. Patent Office. Outside white. Patton Paint Co., Milwaukee, Wis.; Newark, N. J.

PATTON'S SUN-PROOF PAINTS.

Analysis.

	Pigment.	Vehicle.	Total.
lead carbonate.....	39%	-----	24%
inc oxide.....	50%	-----	31%
ilica and silicates.....	11%	-----	7%
linseed oil.....	-----	92%	35%
apan drier.....	-----	8%	3%
	100%	100%	100%

DIRECTIONS.

Stir paint thoroughly from bottom. Surface must be clean and dry. Shellac knots and pitchy places before painting. Putty nail holes after first coat. Allow ample time for each coat to dry. Brush the paint in well—it lasts longer.

Priming new work.—Add three pints strictly pure linseed oil and one pint turpentine to every gallon.

First coat old work or second coat new work.—Add one quart strictly pure linseed oil and one pint turpentine to each gallon.

For finishing coat.—Use the paint as it comes in the can.

For inside work.—If the gloss is too high, add a little turpentine.

O-W.

Do not prime with ochre.

EXHIBIT 25.

The Lawrence Colors. Medium chrome yellow. Ground in pure linseed oil. W. W. Lawrence & Co., Pittsburgh. 1 lb. net. The manufacturer's signature is placed only on their best brand. W. W. Lawrence & Co.
No. 354, medium chrome yellow lead chromate, 100 %. Ground in pure linseed oil.

EXHIBIT 26.

Masury's pure colors. Ground in pure linseed oil. Prussian blue. Warranted superior to any in the market. Manufactured only by John W. Masury & Son, New York, Chicago, Minneapolis, & Kansas City. Beware of imitations. None genuine unless bearing the signature of John W. Masury & Son.
23-69-F.

COMPOSITION.

Paint:		
Pigment.....		44%
Vehicle.....		56%
		100%
Pigment: Ferric ferrocyanide.....		100%
Vehicle:		
Linseed oil.....		94%
Turpentine dryer.....		6%
		100%

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DIRECTIONS FOR OPENING THE PATENT CAN.

Pierce the thin tin top near the outer edge with the point of a knife. Then turn the knife so that the blade will occupy a position horizontal to the top of the can. The thin tin can then be easily cut, leaving a smooth edge.

EXHIBIT 27.

Heath & Milligan Mfg. Co. Best prepared paint. Outside white. Chicago.
Analysis outside white, one U. S. standard $\frac{1}{4}$ gallon.

	Total.	Pigment.	Liquid.
Lead carbonate.....	28.35%	45%	-----
Zinc oxide.....	28.35%	45%	-----
Calcium carbonate.....	6.30%	10%	-----
Linseed oil.....	31.85%	-----	86.07%
Turpentine.....	2.20%	-----	5.57%
Japan.....	2.20%	-----	5.57%
Petroleum spirits.....	.75%	-----	2.79%
	100.00%	100%	100.00%

EXHIBIT 28.

The Sherwin-Williams paint. Prepared. Made to paint buildings with, outside and inside. One quart U. S. standard measure S. W. P. pure gloss white for outside use. The Sherwin-Williams Co., paint and varnish makers. Factories: Cleveland, Chicago, Newark, Montreal, London, Eng. Sales Offices and warehouses in principal cities. Cover the earth. P86 G10 1952. Made in U. S. A.

S. W. P. GLOSS WHITE.

Contents of can:		
Pigment by weight.....		68%
Liquid by weight.....		32%
		100%
Composition of liquid:		
Linseed oil.....		92%
Japan drier and turp.....		8%
		100%

Composition of pigment:

Lead carbonate.....	36%
Lead sulphate.....	22%
Zinc oxide.....	42%
	<hr/>
	100%

549

IMPORTANT—STIR THOROUGHLY.

Success in painting depends upon the use of good material carefully applied on a proper surface under favorable conditions. The important thing is to know what to do and how to do it and what not to do and how to avoid it.

The wide variety of conditions of surface and lumber make it difficult to give any definite directions for use which will apply to all cases, and we would therefore prefer that consumers consult our pamphlet, "The Right Use of Paint," which is in the hands of every agent and which gives definite directions covering practically every requirement.

The following general directions must, however, always be observed, else best results in the use of any paint can not be had:

The paint must be thoroughly stirred. Puttying on new work must not be done until after priming. Old work that is peeling or scaling must be properly scraped before repainting. Paint to be used on soft, spongy, or open surfaces must be thinned liberally with pure raw linseed oil with a little pure spirits turpentine for first coats and be well brushed in to satisfy the surface, while paint to be used on old, hard, and sinuous surfaces or for second coat on new work requires the use of less oil and a liberal allowance of spirits turpentine to assist in penetration. Coats must not be flowed on, but must be brushed evenly into the surface. Always use 3 coats on new work.

WHAT TO AVOID.

Never use ochre as a primer.

Never paint in wet or frosty weather. The surface must be perfectly dry and free from smoke or grease.

Never paint over green or sappy lumber. Do not apply second or third coats until the under coat is perfectly dry.

Never add drier of any kind.

Avoid the use of wide or flat brushes. Use a round or oval brush instead. With it you can brush out the paint much better and work it into the surface.

The CHAIRMAN. How are the receptacles that contain this spurious lead labeled?

Mr. DEWAR. "White lead" and "pure white" lead.

The CHAIRMAN. Have you any samples of them here?

Mr. DEWAR. Yes, sir; that [indicating] contains about——

The CHAIRMAN. Wait a minute. You have just handed me here what appears to be the top of a hundred-pound keg; where did you get that?

Mr. DEWAR. I bought that in the open market.

The CHAIRMAN. What kind of material was in the keg that had this top to it?

Mr. DEWAR. Here is the analysis of the lead. There were about 2——

The CHAIRMAN. Wait one moment. The analysis appears where? You say that Exhibit 6, which is found on page 96 of this print of exhibit, is the correct analysis of the paint which is contained in the receptacle, the top of which you have handed me here?

Mr. DEWAR. I did not make the analysis myself.

The CHAIRMAN. But you had it made, did you?

Mr. DEWAR. Yes, sir.

The CHAIRMAN. Who by?

Mr. DEWAR. By Prof. Ladd, commissioner of the Agricultural College of North Dakota.

The CHAIRMAN. Is he a competent chemist?

Mr. DEWAR. He is.

The CHAIRMAN. The top of this keg is branded as follows: "Bridgeport Standard 100 Lbs., White Lead, The Bridgeport Wood Finishing Company, New Milford, Connecticut." The top of the keg will be marked "Exhibit 29." Have you any more of this sort of material?

Mr. DEWAR. No, sir; not with us.

The CHAIRMAN. Have you anything further that you desire to say?

Mr. DEWAR. I want to say that I find in the literature of the Agricultural Department that turpentine on investigation there is found to be adulterated to the extent of from 6 to 70 per cent with mineral spirits.

The CHAIRMAN. What proportion is so adulterated? Is it just occasionally some that you find, or is it general for adulteration to be resorted to?

Mr. DEWAR. With the master painters it is a usual occurrence to find it adulterated. In fact, I myself in the purchase of turpentine in the open market make the manufacturer give me a special guaranty that it is strictly pure turpentine.

The CHAIRMAN. That still does not answer the question. Of course, you can say that turpentine is adulterated—that it runs all the way from pure to 1 per cent of turpentine, for instance. That might be true, and still 99 per cent of it might be absolutely pure turpentine—that is, 99 per cent of the entire bulk sold. What I am trying to get at is, what proportion of the bulk that is sold is adulterated to a greater or less extent?

Mr. DEWAR. Commercial turpentine, 75 per cent, I should say, as found on the market.

The CHAIRMAN. Now, when you have this adulterated turpentine, what is it adulterated with?

Mr. DEWAR. With mineral spirits.

The CHAIRMAN. What is the effect of the adulteration on the durability and usefulness of the article?

Mr. DEWAR. The mineral spirit may be benzine, a by-product from petroleum, and there may be such a large quantity of petroleum in it that it will keep the paint from drying, and it would become of a soggy, tacky substance, where the action of the sun and water upon it will cause it to blister and peel off.

The CHAIRMAN. What other things are used as adulterants?

Mr. DEWAR. Linseed oil—

The CHAIRMAN. No; stick to turpentine. You spoke of benzine as an adulterant. What other things are used as adulterants?

Mr. DEWAR. I really do not know of any other than mineral spirits.

The CHAIRMAN. Now come to linseed oil.

Mr. DEWAR. I have purchased myself in the market linseed oil that would be adulterated as high as 60 per cent with mineral oil, and yet the package would be marked "Pure Linseed Oil."

The CHAIRMAN. What proportion of the linseed oil do you understand and believe, from your experience, is adulterated?

Mr. DEWAR. Well, it is pretty hard to state. I should say at least 35 per cent.

The CHAIRMAN. And what do they adulterate linseed oil with?

Mr. DEWAR. They adulterate linseed oil with petroleum oil, fish oil, corn oil, and there are a number of things but those are the principal adulterants, and you and I, Senator, by looking at it and smelling it, can not tell that it is adulterated.

The CHAIRMAN. What effect do these adulterants have upon the usefulness and durability of linseed oil?

Mr. DEWAR. They cause the paint very shortly to disintegrate and break down.

The CHAIRMAN. All you are asking now is that when you go and buy paints or oil or turpentine, that they shall be honestly branded, stating just what the particular article is, so that you will know what you are buying?

Mr. DEWAR. Exactly.

The CHAIRMAN. You are willing that they shall sell all the adulterated and mixed stuff they want to, but you want them to sell it so that the man who buys it will know what he is getting?

Mr. DEWAR. That is the whole sum and substance of the matter.

The CHAIRMAN. Now, whom do you represent?

Mr. DEWAR. The committee here represents the National Association of Master House Painters and Decorators of the United States.

The CHAIRMAN. How many members has that association?

Mr. DEWAR. Very nearly 2,000.

The CHAIRMAN. Where are they located—all over the United States?

Mr. DEWAR. All over the United States; yes, sir.

The CHAIRMAN. Why are they interested in it?

Mr. DEWAR. Because of their experience with adulterated paints they are very much interested. For eight years we have tried to have a bill passed through Congress to protect the consumers against the adulteration that has been rampant.

The CHAIRMAN. Also, I presume, to protect yourselves. If you put on a bad job of paint and it does not turn out well, you sometimes have complaints, do you not?

Mr. DEWAR. I speak of myself as a consumer.

The CHAIRMAN. Is there anything else you desire to say?

Mr. DEWAR. No, sir; you have stated in a nutshell the intent of this bill, that we, as master painters, and the public generally will know what we are buying, and the farmer, as he goes into the market to buy his paint, will know that he is buying a pure article, or that he will know what he is buying; that his linseed oil is not 30 per cent mineral oil, and if he wants lead, that he is not buying barytes.

(Mr. Dewar was thereupon excused.)

The CHAIRMAN. Gentlemen, we have 15 minutes left for this hearing.

Senator KENYON. What about the other gentlemen present?

Mr. DEWAR. They will cover about the same ground, I think.

Mr. MACNICHOL. I think Mr. Dewar has covered all there is to be said.

The CHAIRMAN. You are a master painter, are you?

Mr. MACNICHOL. Yes, sir.

The CHAIRMAN. You have heard the testimony that has been given here?

Mr. MACNICHOL. Yes, sir.

The CHAIRMAN. Do you agree with it?

Mr. MACNICHOL. Yes, sir.

The CHAIRMAN. You think it is a correct statement of the situation?

Mr. MACNICHOL. I think it is a very fair statement; yes, sir.

The CHAIRMAN. You live here in Washington, do you?

Mr. MACNICHOL. Yes, sir; I do.

The CHAIRMAN. How many years have you been a master painter?

Mr. MACNICHOL. Over 43 years.

The CHAIRMAN. As to this adulteration, is it on the increase or decrease?

Mr. MACNICHOL. I think it is on the decrease.

The CHAIRMAN. When did it begin?

Mr. MACNICHOL. It started when this agitation started, eight or nine years ago.

The CHAIRMAN. When did adulteration begin to any marked degree?

Mr. MACNICHOL. With the beginning of making manufactured paints, prepared paints.

The CHAIRMAN. That is, paints that are already mixed, in cans?

Mr. MACNICHOL. Yes, sir; I think so.

The CHAIRMAN. Prior to that time you used to get white lead in dry form, did you not?

Mr. MACNICHOL. Senator, my knowledge of paint can not go back that far. It is only since I have been a member of this committee that I have been able to dip into the business and give it the time necessary to find out what I was buying and what were the paint ingredients.

The CHAIRMAN. You say since the manufacture of paint was made necessary—you said that a minute ago—since the making of manufactured paint. Do you mean by manufactured paint paint that is—

Mr. MACNICHOL. That is ready-mixed paint.

The CHAIRMAN. Now, before the use of this ready-mixed paint in what form did you get your paint?

Mr. MACNICHOL. We used to buy the oil and turpentine and other ingredients.

The CHAIRMAN. When they began to make it as mixed paint, they began to really mix it with other things, did they?

Mr. MACNICHOL. It was born as an abortion, I believe, of the national paint business or of the carbonated lead business. My knowledge of the paint business does not go back so very far, that is, as to ingredients and other compositions.

Senator KENYON. What about these other gentlemen here? Are they from different States?

STATEMENT OF MR. GEORGE BUTLER, PHILADELPHIA, PA.

Mr. BUTLER. Mr. Chairman, I am from Philadelphia. My name is George Butler.

The CHAIRMAN. What is your business?

Mr. BUTLER. I am a master painter.

The CHAIRMAN. How long have you been a master painter?

Mr. BUTLER. About 48 years, man and boy.

The CHAIRMAN. You heard the testimony that was given here. Is it a fair statement of the case?

Mr. BUTLER. It is a fair statement, and I think the whole matter was covered, according to my view, by what you said. What we want is an opportunity for a man to know what he is going to buy.

The CHAIRMAN. I know that is what you want, but I am not interested in that just now. I want to know if what has been said is a fair statement of the case.

Mr. BUTLER. That covers the ground.

The CHAIRMAN. I am interested in the question whether or not you agree with what has been said.

Mr. BUTLER. I agree with what Mr. Dewar has said.

The CHAIRMAN. Do you agree with Mr. Dewar's statement of facts?

Mr. BUTLER. Yes, sir.

The CHAIRMAN. That has been your experience?

Mr. BUTLER. Yes, sir.

The CHAIRMAN. Your experience bears out his statement, does it?

Mr. BUTLER. Yes, sir.

The CHAIRMAN. We can hear Mr. Russell.

STATEMENT OF GEORGE E. RUSSELL, OF WASHINGTON, D. C.

The CHAIRMAN. Mr. Russell, where do you live?

Mr. RUSSELL. In Washington, D. C.

The CHAIRMAN. Are you a master painter?

Mr. RUSSELL. Yes, sir.

The CHAIRMAN. For how many years have you been a master painter?

Mr. RUSSELL. For about 44 years.

The CHAIRMAN. Do you agree with the testimony and the statement of facts that have been made here?

Mr. RUSSELL. Yes, sir.

The CHAIRMAN. Mr. G. B. Heckel will be heard now.

The CHAIRMAN. You are on the other side of this case, are you not?

Mr. HECKEL. Yes, sir. I am on the other side.

The CHAIRMAN. Very well; we will take your testimony separately.

Mr. W. F. Andrews will be heard.

STATEMENT OF W. F. ANDREWS, OF WASHINGTON, D. C.

The CHAIRMAN. What is your business?

Mr. ANDREWS. I am a master painter.

The CHAIRMAN. How long have you been a master painter?

Mr. ANDREWS. About 40 years.

The CHAIRMAN. Do you agree with the statement of facts that has been made here?

Mr. ANDREWS. Thoroughly; yes, sir.

The CHAIRMAN. Mr. McGhan we can hear you now.

STATEMENT OF A. H. MCGHAN, SECRETARY AND TREASURER INTERNATIONAL ASSOCIATION OF MASTER HOUSE PAINTERS AND DECORATORS.

The CHAIRMAN. Where do you live?

Mr. MCGHAN. In Washington, D. C. I am secretary and treasurer of the International Association of Master House Painters and Decorators.

The CHAIRMAN. Are you a master painter?

Mr. MCGHAN. Yes, sir.

The CHAIRMAN. How long have you been a master painter?

Mr. McGHAN. Since 1879—36 years.

The CHAIRMAN. Have you had occasion to examine into the question of this adulteration of paint?

Mr. McGHAN. Yes, sir.

The CHAIRMAN. Do you agree with the statement that has been made by Mr. Dewar here as far as concerns the statement of facts?

Mr. McGHAN. I do; yes, sir. On behalf of the International Association and the different local associations I will say from my knowledge that they indorse most heartily what Mr. Dewar has said.

The CHAIRMAN. Mr. Walker, the committee will hear you when we hear the other gentlemen next week. Can you appear before the committee?

Mr. WALKER. I will be very glad to come. May I ask how many hearings there will be?

The CHAIRMAN. I am going to try to end it in one other hearing. I am sorry that we can not finish the hearing to-day.

Mr. Heckel, you can begin.

**STATEMENT OF MR. G. B. HECKEL, 636 THE BOURSE,
PHILADELPHIA, PA.**

The CHAIRMAN. Whom do you represent?

Mr. HECKEL. I represent an association which covers the United States.

The CHAIRMAN. What association is it?

Mr. HECKEL. The Paint Manufacturers' Association.

The CHAIRMAN. And you come here representing them?

Mr. HECKEL. Mr. Chairman, I have come here on short notice. I gathered from the public press that there was to be a hearing.

The CHAIRMAN. That is the only means of notification that anybody is supposed to get; there is no other way to notify men, but I did instruct that letters be sent out as far as we had any information on the subject.

Mr. HECKEL. I am not criticizing, Senator at all, excepting that the people who are interested on the other side to a certain extent would like the opportunity to be heard, or to present their side of the case.

The CHAIRMAN. Mr. Heckel, you will be given an opportunity on next Tuesday—I am putting the hearing off a week on your account.

Mr. HECKEL. I thank you very much for that, Mr. Chairman.

The CHAIRMAN. I am ready to go to-morrow morning or to-night, but on next Tuesday, in order to give you people a full chance to be heard, we will meet here at 10 o'clock. I wish to say to you, however, that what I said to these gentlemen applies also to you, that what we want is not speeches but facts.

Mr. HECKEL. Yes, sir.

The CHAIRMAN. I do not mean to say that a man has got to be tongue-tied, but it is a question of getting the facts in condensed shape.

Mr. HECKEL. I think we have them.

The CHAIRMAN. Do I understand now that you propose to dispute these statements that have been made?

Mr. HECKEL. To a certain extent; yes, sir.

The CHAIRMAN. Do you propose to resist the labeling of your articles?

Mr. HECKEL. The formula label; yes, sir; to the extremity. As to the rest of the bill the manufacturers, I think, with very few exceptions wish to see it adopted.

The CHAIRMAN. But you do not want to put on your receptacles what you are selling?

Mr. HECKEL. The analysis.

The CHAIRMAN. Why?

Mr. HECKEL. One reason is illustrated by the condition of the paint industry to-day. Those manufacturers who have labeled with colored paints to-day have had to destroy a great many of their labels and print new ones because the goods are not obtainable. If they make changes in the formula, it means that they have got to change the label every time they do it or maintain the same formula they have always used.

The CHAIRMAN. I did not mean to go into the details of the matter. I simply wanted an outline of your position. You gentlemen are at liberty to come here and you are at liberty to ask any of these gentlemen any questions that you desire to ask now.

Mr. HECKEL. I do not care to ask any questions now.

The CHAIRMAN. If there is nothing further we will adjourn until 10 o'clock Tuesday morning, April 11, 1916.

(Thereupon, at 12 o'clock m., the committee adjourned, to meet at 10 o'clock a. m., Tuesday, April 11, 1916.)



ADULTERATED, MISLABELED, OR MISBRANDED LINSEED OIL, TURPENTINE, OR PAINT.

TUESDAY, APRIL 11, 1916.

UNITED STATES SENATE,
COMMITTEE ON MANUFACTURES,
Washington, D. C.

The subcommittee met at 10 o'clock a. m., pursuant to adjournment, Senator James A. Reed, presiding.

Present: Senators Reed (chairman), Broussard, and Cummins.

Also present: Senator William S. Kenyon; Mr. G. B. Heckel; Mr. P. H. Walker, Bureau of Standards; Mr. J. S. Felton, of Felton, Libby & Co., Philadelphia, Pa.; Mr. H. R. Gibbs, of T. H. Nevin Co., and president of the Paint Manufacturers' Association of Pittsburgh, Pa.; Mr. L. H. Fehsenfeld, of H. B. Davis & Co., Baltimore, Md.; Mr. E. D. Gregory, of the Fraser Paint Co. of Virginia and Detroit.

The CHAIRMAN. The committee will resume the consideration of the bill (S. 1289) for preventing the manufacture, sale, or transportation of adulterated, mislabeled, or misbranded linseed oil, turpentine, or paint.

The CHAIRMAN. Who is present now who desires to be heard in opposition to this bill.

Mr. G. B. HECKEL. I think I shall be the one, Senator.

Mr. DEWAR. After these gentlemen are through I should like to say a few words to the committee.

The CHAIRMAN. The opportunity will be afforded all of you if we can allow you the time.

Mr. DEWAR. And may I be allowed to interrogate the gentlemen on the other side?

The CHAIRMAN. Yes.

STATEMENT OF G. B. HECKEL, SECRETARY PAINT MANUFACTURERS' ASSOCIATION, PHILADELPHIA, PA.—Resumed.

The CHAIRMAN. Mr. Heckel, where do you reside?

Mr. HECKEL. In Philadelphia, Pa. I am secretary of the Paint Manufacturers' Association.

The CHAIRMAN. What is the Paint Manufacturers' Association?

Mr. HECKEL. It is an association composed of a majority of the paint manufacturers in the United States.

The CHAIRMAN. Have you a list of its membership?

Mr. HECKEL. Not with me. I have such a list which I can furnish.

The CHAIRMAN. Will you furnish it, sending it to the reporter, making it a part of your answer to the question?

Mr. HECKEL. I will; yes, sir. Also of the International Varnish Manufacturers' Association.

The CHAIRMAN. Are you secretary of the International Varnish Manufacturers' Association?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. What composes its membership?

Mr. HECKEL. The varnish manufacturers of the United States.

The CHAIRMAN. How many of them are there?

Mr. HECKEL. Seventy-six.

The CHAIRMAN. How many are there in the United States?

Mr. HECKEL. It totals, large and small, about 150.

The CHAIRMAN. Will you also furnish at this point a list of the members of the Varnish Manufacturers' Association?

Mr. HECKEL. I will.

(The lists of membership referred to are as follows:)

MEMBERS OF THE PAINT MANUFACTURERS' ASSOCIATION OF THE UNITED STATES.

Acme White Lead and Color Works, 1740 St. Aubin Avenue, Detroit, Mich.; also Lincoln, Nebr.

Adams & Elting Co., 716 Washington Boulevard, Chicago, Ill.

Allentown Manufacturing Co., Allentown, Pa.

American Paint Works, 434 Josephine Street, New Orleans, La.

Arco Co., The, Euclid Avenue and East Sixty-fifth Street, Cleveland, Ohio.

Bass-Hueter Paint Co., 816 Mission Street, San Francisco, Cal.

Billings-Chapin Co., 1163 East Fortieth Street, Cleveland, Ohio.

Blatz Paint & Varnish Co., Val., 319 South Shelly Street, Louisville, Ky.

Blood & Co., T. L., 413 Wacauta Street, St. Paul, Minn.

Boydell Bros.' White Lead & Color Co., 46 Champlain Street, Detroit, Mich.

Bradley & Vrooman Co., 2629 Dearborn Street, Chicago, Ill.

Bridgeport Wood Finishing Co., New Milford, Conn.

Briggs & Co., John, 45 Purchase Street, Boston, Mass.

Buckeye Paint & Varnish Co., Fifteenth and Lucas Streets, Toledo, Ohio.

Buffalo Oil, Paint & Varnish Co., 1317 Elk Street, Buffalo, N. Y.

Burdsal, A., Co., 102 South Meridian Street, Indianapolis, Ind.

Burgess, Fobes & Co., Portland, Me.

Cabot, Samuel (Inc.), 141 Milk Street, Boston, Mass.

Campbell Paint & Glass Co., Main and Gratiot Streets, St. Louis, Mo.; also Kansas City, Mo.

Cawley, Clark & Co., 278 Passaic Street, Newark, N. J.

Cheesman & Elliot, 100 William Street, New York.

Chicago White Lead & Oil Co., 1436-1458 South Western Avenue, Chicago, Ill.

Childs, C. M., & Co., 99 Johns Street, New York.

Chilton Paint Co., College Point, Long Island, N. Y.

Colonial Works, 233 Norman Avenue, Brooklyn, N. Y.

Connors Paint Manufacturing Co., William, 675 River Street, Troy, N. Y.

Cook, C. R., Paint Co., Twenty-first and Broadway, Kansas City, Mo.

Davis Co., H. B., Keyser Building, Baltimore, Md.

Dean & Barry Co., 296 Water Street, Columbus, Ohio.

Debevoise Co., The, 968 Grand Street, Brooklyn, N. Y.

Detroit Graphite Co., 10 Twelfth Street, Detroit, Mich.

Devoc, F. W., & C. T. Reynolds Co., 101 Fulton Street, New York, N. Y., also 14-16 West Lake Street, Chicago, Ill.

Dozier & Gay Paint Co., Jacksonville, Fla.

Eagle Paint & Varnish Co., 225 Galveston Avenue, Pittsburgh, Pa.

Eberson-Lindsey Paint Co., Nineteenth and Morgan Streets, St. Louis, Mo.

Enterprise Paint Manufacturing Co., Peoria and Van Buren Streets, Chicago, Ill.

Farwell, Osmun, Kirk & Co., Second and Jackson Streets, St. Paul, Minn.

Felton, Sibley & Co., Fourth and Cherry Streets, Philadelphia, Pa.

Forest City Paint & Varnish Co., 3334 Lakeside Avenue, Cleveland, Ohio.

Forman, Ford & Co., 111 South Second Street, Minneapolis, Minn.

Foy Paint Co., Gilbert Avenue and Park Entrance, Cincinnati, Ohio.

Fuller & Co., W. P., Pine and Front Streets, San Francisco, Cal.

Gilman Paint & Varnish Co., Chattanooga, Tenn.
 Hanline Bros., 23 South Howard Street, Baltimore, Md.
 Hanna Paint Manufacturing Co., 111 East Long Street, Columbus, Ohio.
 Hardy Paint & Varnish Co., Oakwood Avenue and Hoag Street, Toledo, Ohio.
 Harrison Bros. & Co. (Inc.), 3500 Gray's Ferry Road, Philadelphia, Pa.
 Heath & Milligan Manufacturing Co., 1837 Seward Street, Chicago, Ill.
 Hirshberg, Hollander & Co., 108 Pratt Street, Baltimore, Md.
 Howell & Co., Charles H., 214 Race Street, Philadelphia, Pa.
 Imperial Varnish & Color Co., The, 8-20 Morse Street, Toronto, Canada.
 International Color & Chemical Co., 810 Union Trust Building, Detroit, Mich.
 Irvin, Jewell & Vinson Co., Dayton, Ohio.
 Johnson & Co., Oliver, 24 Custom House Street, Providence, R. I.
 Johnston Paint Co., R. F., 226 Main Street, Cincinnati, Ohio.
 Kay & Ess Co., Dayton, Ohio.
 Kohler-McLister Paint Co., 1621 Araphoe Street, Denver, Colo.
 Kurpees Paint Co., J. F., 118 East Market Street, Louisville, Ky.
 Lampton, Crane & Ramey Co., Fifteenth and Lytle Streets, Louisville, Ky.
 Lawrence & Co., W. W., East Carsons Street, Pittsburgh, Pa.
 Lawrence-McFadden Co., 1400 Frankford Avenue, Philadelphia, Pa.
 Leis, John T., & Bros., Co., Lafayette Building, Philadelphia, Pa.
 Long, Charles R., Jr., & Co., 622 East Main Street, Louisville, Ky.
 Longman & Martinez, 207 Pearl Street, New York, N. Y.
 Louisville Lead and Color Co. (P-G Co.), Fifteenth and Lytle Streets, Louisville, Ky.
 Lucas, John & Co. (Inc.), 322 Race Street, Philadelphia, Pa.: also 1336 West Thirty-seventh Street, Chicago, Ill.
 Marietta Paint and Color Co., Marietta, Ohio.
 Martin-Senour Co., 2520 Quarry Street, Chicago, Ill.
 McMurtry Mfg. Co., 1533 Arapahoe Street, Denver, Colo.
 Masury & Son, John W., 44 Jay Street, Brooklyn, N. Y.
 McPhee & McGinnity Co., Twenty-third and Blake Streets, Denver, Colo.
 Miami Valley Paint Co., 118 East Third Street, Dayton, Ohio.
 Minnesota Linseed Oil Paint Co., 1111 South Third Street, Minneapolis, Minn.
 Moore & Co., Benjamin, 231 Front Street, Brooklyn, N. Y.: also 409 Green Street, Chicago, Ill.; also 1322 Marquette Avenue, N.E., Cleveland, Ohio.
 Moser Co., The Charles, 215 East Ninth Street, Cincinnati, Ohio.
 Mound City Paint & Color Co., 1511 North Eleventh Street, St. Louis, Mo.
 Nevan Co., The T. H., Island and Preble Avenues, Pittsburgh, Pa.
 New England Oil, Paint, & Varnish Co., Everett Station, Boston, Mass.
 Nice, Eugene E., 272 South Second Street, Philadelphia, Pa.
 O'Neil Oil & Paint Co., 297 East Water Street, Milwaukee, Wis.
 Patek Bros., Milwaukee, Wis.
 Patton Paint Co., 217 Lake Street, Milwaukee, Wis.: also foot of Chester Avenue, Newark, N. J.
 Peaslee-Gaulbert Co., Louisville, Ky.
 Pecora Paint Co., Fourth and Venango Streets, Philadelphia, Pa.
 Peerless Paint & Varnish Co., 715 Prospect Street, Cleveland, Ohio.
 Phoenix Paint & Varnish Co., 124 Market Street, Philadelphia, Pa.
 Pierce Co., F. O., 12 West Broad av., New York, N. Y.
 Platt & Thornburgh Paint Co., 620 Franklin Avenue, St. Louis, Mo.
 Popplein, G. & N., jr., 220 North Street, Baltimore, Md.
 Prince Paint Co., James H., 7 Lancaster Street, Boston, Mass.
 Richmond Bros., 117 East Sixth Street, Cincinnati, Ohio.
 Sargent Paint Co., 502 Massachusetts Avenue, Indianapolis, Ind.
 Sewall Paint & Glass Co., 1009 West Eighth Street, Kansas City, Mo.
 Shoemaker & Co., Robert, Fourth and Race Streets, Philadelphia, Pa.
 Smith, Edward & Co., West Avenue and Sixth Street, Long Island City, N. Y.
 Southern Paint & Varnish Co., 39 East Alabama Street, Atlanta, Ga.
 Stockton Paint Co., Stockton, Cal.
 St. Paul White Lead & Oil Co., Water and Starkey Streets, St. Paul, Minn.
 Tanner Paint & Varnish Co., 1419 East Main Street, Richmond, Va.
 Thompson & Co., 1119 Grant Avenue, Pittsburgh, Pa.
 Tremont Paint & Varnish Co., 16 Washington Street, Boston, Mass.
 Trus-Con Laboratories, Detroit, Mich.
 United States Gutta Percha Paint Co., 12 Dudley Street, Providence, R. I.
 Vane-Calvert Paint Co., 1601 North Broadway, St. Louis, Mo.
 Vilas Bros., 227 Fifth Avenue, Chicago, Ill.

Wadsworth-Howland Co., 219 Carpenter Street, Chicago, Ill.
 Wadsworth, Howland & Co. (Inc.), 84 Washington Street, Boston, Mass.
 Waggener Paint & Glass Co., 2004-2006 Grand Avenue, Kansas City, Mo.
 Warren Paint Co., Warren, Ohio.
 Washburne Co., The Ira D., 1006-1012 Central Avenue, Cincinnati, Ohio.
 Wetherill & Co. (Inc.), George D., 114 North Front Street, Philadelphia, Pa.
 Woolsey, C. A., Paint & Color Co., Grand, Merseles, and Golden Streets, Jersey City, N. J.
 Yarnall Paint Co., 1026 Race Street, Philadelphia, Pa.
 Zummach, William F., 281 West Water Street, Milwaukee, Wis.

MEMBERS OF THE NATIONAL VARNISH MANUFACTURERS' ASSOCIATION, DECEMBER 1, 1915.

Akron Varnish Co., 500 South Main Street, Akron, Ohio.
 American Varnish Co., 1138 North Branch Street, Chicago, Ill.
 Anglo-American Varnish Co., 53 Johnson Street, Newark, N. J.
 Atlantic Drier & Varnish Co., Meadow and Wolf Streets, Philadelphia, Pa.
 Atlantic Varnish Works (Inc.), 2829 Rocketts Street, Richmond, Va.
 Babcock, John, & Co., 112 Water Street, Boston, Mass.
 Becker, R. A., Varnish Co., 1337 Harrison Avenue, Cincinnati, Ohio.
 Beckwith-Chandler Co., 320 Fifth Avenue, New York, N. Y.
 Berry Bros. (Inc.), foot of Lieb Street, Detroit, Mich.
 Blackburn Varnish Co., Dana and Floral Avenues, Cincinnati, Ohio.
 Bohner's Sons, Joseph, 1093 Metropolitan Ave., Brooklyn, N. Y.
 Boston Varnish Co., Everett, Boston, Mass.
 Bridgeport Wood Finishing Co., New Milford, Conn.
 Buckeye Paint and Varnish Co., Fifteenth and Lucas Streets, Toledo, Ohio.
 Burbank & Ryder Varnish Co., 62 Alford Street, Boston, Mass.
 Calman, Emil, & Co., 100 William Street, New York.
 Chase-Roberts & Co., Fifth Street and West Avenue, Long Island City, N. Y.
 Chicago Varnish Co., 2100 Elston Avenue, Chicago, Ill.
 Cincinnati Varnish Co., C. H. & D. R. R., Boston and South Streets, Cincinnati, Ohio.
 Cleveland Varnish Co., 3111 East Eighty-Seventh Street, Cleveland, Ohio.
 Coyne Bros. Varnish Co., Second and Pike Streets, Philadelphia, Pa.
 Crockett Company, The David B., Bridgeport, Conn.
 Devoe, F. W., & C. T. Raynolds Co., 101 Fulton Street, New York.
 Federal Varnish Co., 2847-2849 Irving Park Boulevard, Chicago, Ill.
 Felton, Sibley & Co., Fourth and Cherry Streets, Philadelphia, Pa.
 Flint Varnish Works, Flint, Mich.
 Flood & Conklin Co., 136 Chestnut Street, Newark, N. J.
 Forest City Paint & Varnish Co., 3334 Lakeside Avenue, Cleveland, Ohio.
 Fuller, August P., & Co., 432 Fore St., Portland, Me.
 Gillespie, Charles H., & Co., 137 Dey Street, Jersey City, N. J.
 Glidden Varnish Co., Cleveland, Ohio.
 Globe Varnish Co., 6125 Butler Street, Pittsburgh, Pa.
 Gregg Varnish Co., 1511 North Eleventh Street, St. Louis, Mo.
 Hildreth Varnish Co., 90 West Street, New York, N. Y.
 Hotopp Varnish Co., First and Marshall Streets, Hoboken, N. J.
 Imperial Varnish & Color Co. (Ltd.), Toronto, Ontario, Canada.
 Keystone Varnish Co., 71 Otesgo Street, Brooklyn, N. Y.
 Louisville Varnish Co., Fourteenth and Maple Streets, Louisville, Ky.
 Lucas, John, & Co. (Inc.), 322 Race Street, Philadelphia, Pa.
 Masury, John W., & Son, 44 Jay Street, Brooklyn, N. Y.
 Mayer & Loewenstein, 164 Water Street, New York, N. Y.
 McCloskey Varnish Co., Thirtieth and Locust Streets, Philadelphia, Pa.
 McNamara, Michael, Varnish Works, 780-808 Clark Avenue, Detroit, Mich.
 Moller & Schumann Co., Marcy Avenue, corner Flushing and Gerry Streets, Brooklyn, N. Y.
 Moore, Benj., & Co., 231 Front Street, Brooklyn, N. Y.
 Murphy Varnish Co., Newark, N. J.
 National Varnish Co., 153 West Avenue, Long Island City, N. Y.
 Nubian Paint & Varnish Co., 1856 North Fifty-first Street, Chicago, Ill.
 Ohio Varnish Co., 8604 Kinsman Road SE., Cleveland, Ohio.
 Parker, C. H., & Co., Valparaiso, Ind.
 Patterson-Sargent Co., East Thirty-eighth and St. Clair Streets, Cleveland, Ohio.

Phoenix Paint & Varnish Co., 124 Market Street, Philadelphia, Pa.
 Pitcairn Varnish Co., Milwaukee, Wis.
 Pratt & Lambert (Inc.), 79 Tonawando Street, Buffalo, N. Y.
 Queen City Varnish Co., Dana Avenue and Montgomery Road, Cincinnati, Ohio.
 Robbins Varnish Co., 1531 North Eighth Street, St. Louis, Mo.
 San Francisco Pioneer Varnish Co., 816 Mission Street, San Francisco, Cal.
 Seidlitz Varnish Co., Eighteenth and Garfield Streets., Kansas City, Mo.
 Smith, Edw., & Co., West Avenue, Sixth and Seventh Streets, Long Island City, N. Y.
 Standard Varnish Works, Elm Park, Port Richmond, Staten Island, N. Y.; 2600 Federal Street, Chicago, Ill.
 Stewart-Mowry Co., 3218 Shields Avenue, Chicago, Ill.
 Sun Varnish Co., Louisville, Ky.
 Thibaut & Walker Co., 72 Ninth Street, Long Island City, N. Y.
 Thomson Wood Finishing Co., Third and Poplar Streets, Philadelphia, Pa.
 Thresher Varnish Co., 863 East Monument Avenue, Dayton, Ohio.
 Tousey Varnish Co., 520 West Twenty-fifth Street, Chicago, Ill.
 Twin City Varnish Co., 13 South Fifth Street, St. Paul Minn.
 U. S. Varnish Co., 2616 Colerain Avenue, Cincinnati, Ohio.
 Valentine & Co., 456 Fourth Avenue, New York.
 Wadsworth, Howland & Co. (Inc.), 84 Washington Street, Boston, Mass.
 Wetherill, George D., & Co. (Inc.), 114 North Front Street, Philadelphia, Pa.
 Wheeler Varnish Works, The, 2660 Elston Avenue, Chicago, Ill.
 Woolsey Paint & Color Co., C. A., Grand Merseles and Golden Streets, Jersey City, N. J.

Mr. DEWAR. Mr. Chairman, the varnish question does not enter into this discussion in any way whatsoever.

Mr. HECKEL. I will say that I am interested in the question of turpentine and linseed oil, Mr. Dewar, which appears in this bill.

Mr. DEWAR. But as far as it pertains to paint, they have no standing.

The CHAIRMAN. Will you allow me to conduct the examination, as I desire to get at some preliminaries. I want this gentleman to have a chance to make his statement and then you may ask him any question you desire. I think that will be the orderly way and the only way in which we should conduct this examination. What is the character of this paint manufacturers association; what is it organized for?

Mr. HECKEL. For improving conditions of the trade and correcting abuses, largely. It is like other business organizations. It is a member of the Chamber of Commerce of the United States, etc., and is well known.

The CHAIRMAN. What is the fact with reference to the Varnish Manufacturers Association?

Mr. HECKEL. The same.

The CHAIRMAN. Have you by-laws? Is it a complete organization?

Mr. HECKEL. Yes, sir; they will be included with the printed list of names I shall send in.

(The by-laws referred to above are here printed in full, as follows:)

BY-LAWS.

(Revised 1915.)

NAME.

ARTICLE I. The name of this association shall be the Paint Manufacturers' Association of the United States.

OBJECTS.

ART. II. The objects of this association are to guard and promote the interests of the paint manufacturers of the United States and to prevent and correct, as far as possible, any abuses, evils, or improper practices in the paint business.

CONDITIONS FOR MEMBERSHIP.

ART. III. SECTION 1. The membership of this association shall consist exclusively of individuals, firms, or corporations manufacturing liquid or paste paints, colors in oil, and such other general lines of goods as are usually made in a paint factory, and each firm or corporation shall be entitled to but one vote.

SEC. 2. No individual, firm, or corporation shall be eligible to membership until they have signed the agreement relative to nonexchange of paints, and the name of no individual, firm, or corporation manufacturing paint shall hereafter be added to the list of signers of the nonexchange agreement unless said individual, firm, or corporation shall have been admitted to membership in the association.

SEC. 3. The board of directors shall pass upon the eligibility of all applicants for membership, and on the approval of the board of directors and compliance with the requirements of these by-laws, the secretary shall notify the applicant of his admission and promptly notify the members of the association of the fact.

DISQUALIFICATION.

ART. IV. In the event of a member changing his business to such an extent that he is no longer eligible under Article III, his membership shall terminate. The question of qualification shall be decided by the board of directors.

RESIGNATION—EXPULSION.

ART. V. SECTION 1. Resignations shall be considered by the board of directors, who shall have power to accept or reject by a majority vote.

SEC. 2. By a majority vote of the entire board, either in a meeting or by mail, a member may be suspended or expelled for cause; the member thus suspended or expelled having the right to appeal from the decision of the board at the next regular meeting of the association, which may sustain or reverse the action of the board by a majority vote of those present.

OFFICERS.

ART. VI. The officers of this association shall be a president, a first vice president, a second vice president, a secretary, a treasurer, and an auditor.

DUTIES OF PRESIDENT.

ART. VII. SECTION 1. It shall be the duty of the president to preside at all meetings of the association, to perform all the duties usually associated with this office.

SEC. 2. The president shall also have the authority, during the interval between the regular meetings of the association, to appoint such special or temporary committees as may be deemed advisable.

DUTIES OF VICE PRESIDENTS.

ART. VIII. It shall be the duty of the first vice president, or in his absence, of the second vice president, to preside at meetings in the absence of the president or, in case of disability of the president, to perform all the other duties pertaining to the office of president.

DUTIES OF SECRETARY.

ART. IX. It shall be the duty of the secretary to keep a record of all the proceedings of the association and the board of directors, to attend to all details of correspondence, to invite members to all meetings, and when possible to give at least five days' notice in advance thereof. He shall have charge and control of the records and correspondence of the association, and at the expiration of his office shall surrender them to his successor or to the board of directors whenever demanded. He shall receive and record names proposed for membership and communicate the same to the board of directors, and on approval of such application shall so notify the applicant and the members of the association.

DUTIES OF TREASURER.

ART. X. The treasurer shall have charge of the funds of the association and shall give bond, to be paid for by the association and to be approved by the board of directors in such amount as the board of directors shall determine, which amount may be

increased at any time by vote of the board of directors, said bond to be conditioned for the faithful discharge of the duties of his office, and also that he will deposit all moneys received by him and belonging to the association in such depository as may be selected by him and approved by a majority of the board of directors, which approval shall release him from all liability in regard to the safety of such place or places of deposit. He shall pay all proper charges of the association by check or voucher and shall also keep in proper form an account of the moneys received and expended, and at the end of each fiscal year his accounts, vouchers, etc., shall be duly submitted at the annual meeting to the auditor of the association.

DUTIES OF AUDITOR.

ART. XI. It shall be the duty of the auditor to audit the accounts of the treasurer presented to the annual meeting of the association, and he shall render a report of his audit to the president during the meeting.

BOARD OF DIRECTORS.

ART. XII. There shall be a board of directors, consisting of the president, first and second vice presidents, the treasurer, and four directors.

DUTIES OF BOARD OF DIRECTORS.

ART. XIII. The board of directors shall have control of the internal affairs of the association, shall appoint the time and place of special meetings, shall pass upon all applicants for membership, and shall have general charge of the policies and activities of the association. They shall hold such meetings during the year as may appear advisable to them, and shall hold an annual meeting either before or during the annual meeting of the association. Three members shall constitute a quorum at any regular or regularly called meeting.

INITIATION FEE AND ANNUAL DUES.

ART. XIV. SECTION 1. The initiation fee shall be twenty-five (\$25.00) dollars. The annual dues shall be twenty-five (\$25.00) dollars. Both shall be collected by the treasurer.

SEC. 2. The annual dues shall be payable in advance during the month of November.

SEC. 3. The annual dues shall be collected in full from each member, irrespective of the date of his admission.

SEC. 4. Failure to pay the annual dues before the date of the annual meeting shall be considered equivalent to a resignation, and the name of the member thus failing to pay, after two days' notice, shall be dropped from the rolls of the association.

SEC. 5. Members dropped for nonpayment of dues may be reinstated by a majority vote of the board of directors on payment of all dues accrued from the date of last payment.

ANNUAL MEETINGS.

ART. XV. SECTION 1. The annual meeting of this association shall be held on the third Thursday after the first Monday of October in each year, alternately in the cities of New York and Chicago; unless otherwise ordered by vote of the association on recommendation of the board of directors.

SEC. 2. Fifteen members shall constitute a quorum at any meeting of the association.

SPECIAL MEETINGS.

ART. XVI. Special meetings shall be called by the president on the written request of 10 or more members of the association, when such request has been approved by the board of directors.

ELECTION OF OFFICERS AND DIRECTORS.

ART. XVII. SECTION 1. Officers and directors shall be elected at the annual meeting, to serve for one year, or until their successors are elected. It shall be the duty of the president during the first session of the annual meeting to appoint a nominating committee of five, who shall, during the last session of the meeting, nominate candidates for office as follows:

For president.

For first vice president.

For second vice president.

For treasurer.

For secretary.

For auditor.

For directors (four candidates).

SEC. 2. Unless there be good and sufficient reasons to the contrary, the retiring president shall be nominated by the committee for the office of first vice president, and the retiring first vice president for the office of second vice president.

SEC. 3. In case the president is renominated to succeed himself, the first and second vice presidents shall be also so nominated, unless there be good and sufficient reasons to the contrary.

STANDING COMMITTEES.

ART. XVIII. The president shall annually appoint standing committees of not fewer than three members each as follows: A committee on fire insurance, a committee on transportation, a committee on legislation, a committee on flax development, and an educational bureau, to serve for one year or until their successors are appointed. The educational bureau shall be appointed during the month of June.

AMENDMENTS.

ART. XIX. These by-laws may be amended or suspended by a majority vote of those present at any annual meeting, or, on recommendation of the board of directors, by a mail vote of a majority of the members of this association.

BY-LAWS.

ARTICLE I. The name of this association shall be the National Varnish Manufacturers' Association.

ART. II. The objects of this association are to advance the interests of the varnish manufacturers of the United States; to correct, as far as possible, such evils as may exist in the business; and to cultivate friendly relations among its members.

ART. III. The membership of this association shall consist only of manufacturers of varnish, and each firm or corporation shall be entitled to but one vote.

ART. IV. SECTION 1. The officers of this association shall be a president, two vice presidents, a secretary, and a treasurer, the secretary and the treasurer to be appointed by the president.

SEC. 2. The offices of secretary and treasurer may, at the option of the president, be combined in one person.

ART. V. It shall be the duty of the president to preside at all meetings of the association, to perform all the duties usually associated with this office, and to approve and countersign before payment all bills presented to him by the treasurer, and checks shall not be issued by the treasurer until such approval and signature has been obtained.

ART. VI. It shall be the duty of the first vice president, or in his absence, of the second vice president, to preside at meetings in the absence of the president or in case of disability of the president, to perform all the other duties pertaining to the office of president.

ART. VII. It shall be the duty of the secretary to keep a record of all the proceedings of the association and the board of directors, to attend to all details of correspondence, to invite members to all meetings at least five days in advance thereof. He shall have charge and control of the records and correspondence of the association, and at the expiration of his office, shall surrender them to his successor, or to the board of directors whenever demanded. He shall receive and record names proposed for membership and communicate the same to the board of directors, and on approval of such application, shall so notify the applicant.

ART. VIII. The treasurer shall have charge of the funds of the association and shall give bond, to be paid for by the association and to be approved by the board of directors, in such amount as the board of directors shall determine, which amount may be increased at any time by vote of the board of directors, said bond to be conditioned for the faithful discharge of the duties of his office and the deposit of all moneys received by him belonging to the association in such depository as may be selected by him and approved by a majority of the board of directors, which approval shall release him from all liability in regard to the safety of such place or places of deposit. He shall approve to the president for payment all proper charges of the

association by check, which shall be signed by him and approved and countersigned by the president. He shall also keep in proper form an account of the moneys received and expended, and at the end of each fiscal year his accounts, vouchers, etc., shall be duly submitted, at the annual meeting, to the auditor or auditors appointed by the association.

ART. IX. The board of directors shall consist of seven members, of which board the president and the vice presidents shall be members. Three directors shall constitute a quorum.

ART. X. SECTION 1. The initiation fee shall be ten dollars (\$10) per member.

SEC. 2. Annual dues of concerns rated \$50,000 or less shall be \$25 per year; more than \$50,000 and less than \$100,000, \$50 per year; \$100,000 or over, \$100 per year.

SEC. 3. The annual dues of any member shall be paid on that portion of the rated capital employed in the varnish end of said member's business.¹

ART. XI. SECTION 1. The annual meeting of this association shall be held during the fall of each year—the specific date and place of meeting to be determined by the board of directors.

SEC. 2. An attendance of 15 shall be necessary to constitute a quorum.

ART. XII. Special meetings may be called by the president on the written request of 10 or more members of the association when such request has been approved by the board of directors.

ART. XIII. The election of officers shall be held each year at the regular annual meeting. During the first session of the annual meeting it shall be the duty of the president to appoint a committee of five to nominate officers for the ensuing year.

ART. XIV. The by-laws of the association may be changed at any meeting of the organization by a two-thirds vote of the members present.

The CHAIRMAN. Do you appear here by authority of both of those associations, and speak for them?

Mr. HECKEL. I do; yes, sir.

The CHAIRMAN. So that what you say will be authoritative?

Mr. HECKEL. Officially for those associations; yes, sir.

The CHAIRMAN. Have you read the bill which is now under consideration?

Mr. HECKEL. Yes, sir; I have read the bill carefully.

The CHAIRMAN. You now may make any statement with reference to it that you desire. I simply make the suggestion that you adhere closely to the subject matter because the Senate will convene in an hour and we must attend the session.

Mr. HECKEL. Yes; I found that out before I came in. I shall try to be as brief as possible.

The paint manufacturers—both the paint manufacturers and the varnish manufacturers, I think I am safe in stating, approve the general purposes of this bill excepting in a few particulars, in so far as it tends to the correction of abuses and does not impose an unnecessary burden or hardship on the manufacturers. I emphasize unnecessary."

I wish to call your attention to two or three things regarding the linseed oil and turpentine, first. On page 6 of the bill, beginning on line 5, certain definite standards are set for linseed oil. Now, those standards as set will admit of a great deal of falsification.

I shall try to be brief. It is possible with a high iodine number American oil, of 190 I will say, to add quite a large per cent of soybean oil, which can be added, reducing the iodine number to the figure set here or its neighborhood, and it can be sold as Argentine linseed oil with very little danger of detection. May I ask Mr. Walker if that is not so?

Mr. WALKER. I think so.

Mr. HECKEL. The suggestion in connection with that is that either the standards of the American Society for Testing Materials, which are revised as investigation proceed, or the standards that shall from time to time be established by the Government authorities having charge of the enforcement of this bill, should be adopted. In other words, the linseed oil manufacturers or linseed oil technicians to-day are in a quandary themselves regarding this matter. Argentine linseed oil is pure linseed oil. It has usually a low iodine number. American linseed oil is also pure linseed oil and has a higher iodine number. It is possible to take the low iodine number with the high iodine number and add another oil with similar properties and produce corresponding figures for the lower iodine number oil, and sell it as that. Therefore, the suggestion is that either the standards of the American Society for Testing Materials be designated, or that the Government authorities that shall have the enforcement of this law in charge, be authorized to establish standards as the investigation proceeds.

The CHAIRMAN. May I ask a question for my own information? What do you mean by high and low iodine numbers?

Mr. HECKEL. I think I can explain it without any technicalities at all. The iodine number indicates the oxygen absorbing value of the linseed oil on which its pure value as a paint oil depends. If the iodine absorption is low it means the power of absorbing oxygen is low. If the iodine number is high, it indicates that the power for absorbing oxygen is high. That is, roughly speaking, a very close index to the value of linseed oil for paint or varnish purposes.

The CHAIRMAN. Now, if I understand you correctly, the linseed oil that will dry quickly would be a linseed——

Mr. HECKEL. And satisfactorily.

The CHAIRMAN. And satisfactorily, would be a linseed with a high iodine number?

Mr. HECKEL. That is it exactly.

The CHAIRMAN. And any that does not dry quickly would be the converse; that is, it would be one that did not dry rapidly or satisfactorily?

Mr. HECKEL. That is it exactly.

The CHAIRMAN. You used the word "iodine." I know nothing whatever about the chemical properties of oil. Is that determined by the amount of iodine in it?

Mr. HECKEL. No, sir; by the percentage of iodine that the oil can absorb under given conditions. That is a test which is capable of easy analytical demonstration while the absorption of oxygen is very slow.

The CHAIRMAN. So you use iodine for your chemical test of oil?

Mr. HECKEL. As a measure of the value of the oil.

The CHAIRMAN. The amount of iodine that the oil will absorb—is that the correct term?

Mr. HECKEL. That is correct.

The CHAIRMAN. By that you can determine the rapidity with which the oil will dry?

Mr. HECKEL. And also the purity of the oil, generally speaking. I refer to that because it is very a rigid standard as stated in these paragraphs to which I call attention.

The CHAIRMAN. You were saying that you desired to have the standards that had been adopted by the paint manufacturers?

Mr. HECKEL. No, sir; by the American Society for Testing aterials.

Senator KENYON. Have not those standards been adopted by many the States?

Mr. HECKEL. They have been incorporated into the law of Iowa.

Senator KENYON. And Pennsylvania?

Mr. HECKEL. I do not think so; I am not sure about that.

Mr. DEWAR. That is a Pennsylvania bill that it is fashioned after the linseed-oil law now in force in Iowa.

The CHAIRMAN. You are getting me away from my question.

Senator KENYON. I beg your pardon, Mr. Chairman.

The CHAIRMAN. I wanted the information necessary in order to hear this matter up. What is the American Society for Testing aterials?

Mr. HECKEL. It is an organization consisting of technical testing engineers and chemists practically all over the United States.

The CHAIRMAN. Have they made up a formula by which to test linseed oil?

Mr. HECKEL. For North American seed oil from North American seeds. They have not formulated the Argentine specifications as yet to boil oil. Those two have been adopted and the formula given out and they are in use all over the United States to-day.

The CHAIRMAN. Can you furnish the committee with a copy of them?

Mr. HECKEL. Yes, sir. Mr. Walker was on the committee that formulated those.

The CHAIRMAN. You will furnish that as a part of your answer to his question, will you?

Mr. HECKEL. I will; yes, sir.

(The formulas referred to are here printed in full, as follows:)

American Society for Testing Materials, Philadelphia, Pa., U. S. A., affiliated with the International Association for Testing Materials.]

STANDARD SPECIFICATIONS FOR PURITY OF RAW LINSEED OIL FROM NORTH AMERICAN SEED.

(Serial designation: D 1-15.)

The specifications for this material are issued under the fixed designation D 1; the final number indicates the year of original issue, or in the case of revision the year of last revision.

Adopted, 1913; revised, 1915.

I. PROPERTIES AND TESTS.

1. Raw linseed oil from North American seed shall conform to the following requirements:

	Maximum.	Minimum.
Specific gravity at $\frac{15^{\circ}.5}{15^{\circ}.5}$ -C.....	0.936	0.932
or		
Specific gravity at $\frac{25^{\circ}}{25^{\circ}}$ -C.....	0.931	0.927
Acid number.....	6	.....
Saponification number.....	195	189
Unsaponifiable matter, per cent.....	1.50	.....
Refractive index at 25° C.....	1.4805	1.4790
Iodine number (Hanus).....	.....	180

II. METHODS OF TESTING.

2. The recommended methods of testing are as follows:

General.—All tests are to be made on oil which has been filtered at a temperature of between 60 and 80° F., through paper in the laboratory immediately before weighing out. The sample should be thoroughly agitated before the removal of a portion for filtration or analysis.

Specific gravity.—Use a pycnometer, accurately standardized and having a capacity of at least 25 c. c., or any other equally accurate method, making a test at 15° C., water being 1 at 15° C., or a test at 25° C., water being 1 at 25° C.

Acid number.—Expressed in milligrams of KOH per gram of oil. Follow the method described in Bulletin No. 107, revised 1908, Department of Agriculture, Bureau of Chemistry, page 142.

Saponification number.—Expressed as with acid number. Blanks should also be run to cover effect of alkali in glass. Follow method given in Bulletin No. 107, revised 1908, Department of Agriculture, Bureau of Chemistry, pages 137–138.

Unsaponifiable matter.—Follow Boemer's method taken from his Ubbelohde Handbuch Der Ole u. Fette, pages 261–262. "To 100 g. of oil in a 1,000 to 1,500 c. c. Erlenmeyer flask add 60 c. c. of an aqueous solution of potassium hydroxide (200 g. KOH dissolved in water and made up to 300 c. c.) and 140 c. c. of 95 per cent alcohol. Connect with a reflux condenser and heat on the water bath, shaking at first until the liquid becomes clear. Then heat for one hour with occasional shaking. Transfer while yet warm to a 2,000-c. c. separatory funnel to which some water has been added, wash out the Erlenmeyer with water, using in all 600 c. c. Cool, add 800 c. c. of ether and shake vigorously one minute. In a few minutes the ether solution separates perfectly clear. Draw off the soap and filter the ether (to remove last traces of soap) into a large Erlenmeyer and distill off the ether, adding if necessary one or two pieces of pumice stone. Shake the soap solution three times with 400 c. c. of ether, which add to the first ether extract. To the residue left after distilling the ether add 3 c. c. of the above KOH solution, and 7 c. c. of the 95 per cent alcohol, and heat under reflux condenser for 10 minutes on the water bath. Transfer to a small separatory funnel, using 20 to 30 c. c. of water, and after cooling shake out with two portions of 100 c. c. of ether; wash the ether three times with 10 c. c. of water. After drawing off the last of the water, filter the ethereal solution so as to remove the last drops of water, distill off the ether, dry residue in water oven, and weigh."

Or any accurate method involving the extraction of the dried soap may be used.

Refractive index.—Use a properly standardized Abbe refractometer at 25° C., or any other equally accurate instrument.

Iodine number (Hanus).—Follow the Hanus method as described in Bulletin No. 107, revised 1908, Department of Agriculture, Bureau of Chemistry, page 136.

STANDARD SPECIFICATIONS FOR PURITY OF BOILED LINSEED OIL FROM NORTH AMERICAN SEED.

(Serial designation: D 11–15.)

The specifications for this material are issued under the fixed designation D 11; the final number indicates the year of original issue, or in the case of revision the year of last revision.

Adopted, 1915.

I. PROPERTIES AND TESTS.

1. Boiled linseed oil from North American seed shall conform to the following requirements:

	Maximum.	Minimum.
Specific gravity at $\frac{15^{\circ}.5}{15^{\circ}.5}$ C.....	0.945	0.937
Acid number.....	8	
Saponification number.....	195	189
Unsaponifiable matter, per cent.....	1.5	
Refractive index at 25° C.....	1.484	1.479
Iodine number (Hanus).....		178
Ash, per cent.....	0.7	0.2
Manganese, per cent.....		0.03
Calcium, per cent.....	0.3	
Lead, per cent.....		0.1

II. METHODS OF TESTING.

2. The recommended methods of testing are as follows:

General.—The sample should be thoroughly agitated before the removal of a portion for analysis.

Specific gravity.—Use a pycnometer, accurately standardized and having a capacity of at least 25 cc., or any other equally accurate method, making a test at 15° 5 C., water being 1 at 15° 5 C.

Acid number.—Expressed in milligrams of KOH per gram of oil. Follow the method described in Bulletin No. 107, revised 1908, Department of Agriculture, Bureau of Chemistry, page 142.

Saponification number.—Expressed as with acid number. Blanks should also be run to cover effect of alkali in glass. Follow method given in Bulletin No. 107, revised 1908, Department of Agriculture, Bureau of Chemistry, pages 137–138.

Unsaponifiable matter.—Follow Boemer's method taken from his Ubbelohde Handbuch Der Ole u. Fette, pages 261–262. "To 100 g. of oil in a 1000 to 1500 cc. Erlenmeyer flask add 60 cc. of an aqueous solution of potassium hydroxide (200 g. KOH dissolved in water and made up to 300 cc.) and 140 cc. of 95 per cent alcohol. Connect with a reflux condenser and heat on the water bath, shaking at first until the liquid becomes clear. Then heat for one hour with occasional shaking. Transfer while yet warm to a 2000 cc. separatory funnel to which some water has been added; wash out the Erlenmeyer with water, using in all 600 cc. Cool, add 800 cc. of ether, and shake vigorously one minute. In a few minutes the ether solution separates perfectly clear. Draw off the soap and filter the ether (to remove last traces of soap) into a large Erlenmeyer and distill off the ether, adding if necessary one or two pieces of pumice stone. Shake the soap solution three times with 400 cc. of ether, which add to the first ether extract. To the residue left after distilling the ether add 3 cc. of the above KOH solution, and 7 cc. of the 95 per cent alcohol, and heat under reflux condenser for 10 minutes on the water bath. Transfer to a small separatory funnel, using 10 to 30 cc. of water, and after cooling shake out with two portions of 100 cc. of ether; wash the ether three times with 10 cc. of water. After drawing off the last of the ether filter the ethereal solution so as to remove the last drops of water, distill off the ether, dry residue in water oven, and weigh."

Or any accurate method involving the extraction of the dried soap may be used.

Refractive index.—Use a properly standardized Abbé refractometer at 25° C. or any other equally accurate instrument.

Iodine number (Hanus).—Follow the Hanus method as described in Bulletin No. 107, revised 1908, Department of Agriculture, Bureau of Chemistry, page 136.

Ash.—The determination of the percentage of ash and the constituents thereof may be made by any method which gives accurate results.

The CHAIRMAN. You state that they have not as yet produced a formula for the examination of Argentine oil.

Mr. HECKEL. For the examination the formula is precisely the same as for any other linseed oil, but the difficulty indicated in my earlier answer has not yet been overcome by this committee.

The CHAIRMAN. What is that difficulty?

Mr. HECKEL. The difficulty of determining whether an oil showing a low iodine number is pure or adulterated.

The CHAIRMAN. How is a standard to be prescribed for that class of oil?

Mr. HECKEL. The committee, who are expert linseed-oil chemists are at work on the subject at the present time. The investigation has been going on for about four or five years.

The CHAIRMAN. Now, if I understand you, you want this committee to amend the bill so that for the examination of North American oils it shall set up the standard which has been produced by the association that you speak of?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. And for South American oils, what is your suggestion about that?

Mr. HECKEL. My suggestion, Senator, is that you are up against the same problem that they are. I would suggest that that be left with the department.

The CHAIRMAN. That is, you would amend this bill so that the standards should be from time to time fixed by the Department of Agriculture—is that where this bill goes?

Senator KENYON. Yes.

Mr. HECKEL. No; the Bureau of Standards.

The CHAIRMAN. The Bureau of Standards?

Mr. HECKEL. Yes, sir.

Senator CUMMINS. What is the Hanus number? Is that some acknowledged standard?

Mr. HECKEL. That is the latest and most highly approved method. Hanus is a chemist's name, and it is the latest improved method of obtaining the highest iodine number, believed to be more accurate than the previous method.

Senator CUMMINS. Is the standard prescribed in the bill—being in line 8 on page 7—high or low? That is 160.

Mr. HECKEL. Shall I read you the standards that are in the American Society's regulations?

Senator CUMMINS. Yes.

The CHAIRMAN. Where are you reading now?

Mr. HECKEL. I am reading "specific gravity" on page 6, line 3.

Senator CUMMINS. I do not ask for all the standards, but the standard of iodine absorption beginning on line 8, page 7. Is that high or low?

Mr. HECKEL. It reads in this way: "Third. Its Hanus iodine absorption number shall not be less than 160."

The American Society for Testing Materials' standard is 180, and it has been suggested by an expert in this line that the Government, if it is going to fix the number, should fix the number at 178.

Senator CUMMINS. Does that mean a better oil or a purer oil than is named under the standard prescribed in this bill?

Mr. HECKEL. It means a better oil from that point of view.

Senator CUMMINS. That is, it grows better as its iodine absorption grows greater?

Mr. HECKEL. It grows probably more pure, at least.

Senator CUMMINS. What is the "saponification" value? I do not understand that.

Mr. HECKEL. The saponification value is an indication of the composition of the oil. That is rather complicated. All oils are compounds of fatty acids with glycerine, and in the making of soap a mineral acid of potash or soda replaces the glycerine—I mean mineral alkalies are used to replace glycerine, in combination with the fatty acids, and that forms soap. The glycerine is expelled and soap is produced. Now the saponification number indicates the fatty acid content of the oil, or the replaceable glycerine.

Senator CUMMINS. That is, the condition has reference to its value for making soap rather than to making paint?

Mr. HECKEL. Well, no. Each oil has its own peculiar acid number. It is also a concurrent test as to purity.

Senator CUMMINS. Has the society of which you speak also a standard with respect to saponification?

Mr. HECKEL. Yes, sir; all these characters are standardized in their specifications.

Senator CUMMINS. What is the number?

Mr. HECKEL. The saponification number?

Senator CUMMINS. Yes; in your society.

Mr. HECKEL. The low figure is 189 and the high figure is 195 for linseed oil.

Senator CUMMINS. That is practically the same as is named in the bill?

Mr. HECKEL. No; 188, that is quite a little difference.

Senator CUMMINS. One hundred and eighty-seven it is here—"shall not be less than 187 or more than 195."

Mr. HECKEL. You are speaking now——

Senator CUMMINS. I am speaking of the saponification value.

The CHAIRMAN. You did not read it as I have it here. It says, "shall not be less than 188." What are you reading from?

Senator CUMMINS. I am looking on page 6, line 11.

Mr. HECKEL. That is the high number. It says, "shall not be less than 187 nor greater than 195." The low number in that case, set by the American Society for Testing Materials, is 189.

The CHAIRMAN. So you suggest, do you, that it be raised to 189 in line 12 of page 6?

Mr. HECKEL. I suggest that if figures are given, those figures as suggested by the American society should be used; but I think, Senator, that in a Federal bill like this it is unsafe to prescribe figures which may be changed from time to time and which even now apply to only one grade of linseed oil, the American product. Therefore I think it would be far safer either in a general way to refer to the standard specification of the American Society for Testing Materials, just as the United States Pharmacopœia is referred to in other acts, or to intrust to the Bureau of Standards the formulation of the standard requirements.

Senator CUMMINS. Is it your suggestion that there should be two standards with respect to these various values—one for domestic oil and one for South American oil?

Mr. HECKEL. That will be the final outcome of the American Society for Testing Materials. Therefore, considering the difficulty—and it is a real difficulty—I should think that the safest plan would be to intrust the standardization to the Government office having charge of the matter.

The CHAIRMAN. Is this Argentine oil—which you say has a low saponification number—as good an oil as the North American oil?

Mr. HECKEL. It is not generally so considered.

The CHAIRMAN. Then, if oil is sold as linseed oil, and is Argentine oil, that ought to appear on the package, ought it not?

Mr. HECKEL. You are attempting to revise a whole industry in that suggestion. The American seed is crushed as available. The average consumption is about 25,000,000 bushels a year. The production sometimes exceeds that quantity. In the last two years it has been only fourteen or fifteen or sixteen million bushels. That deficit must be made up when it occurs by the importation of foreign flaxseed and the mills run indifferently on the imported flaxseed and the domestic flaxseed. In other words, they manufacture pure linseed oil but they manufacture it from the seed whether from abroad or from the United States. All of the American crop is consumed,

and it is only when the American crop gives out that the foreign seed is used.

The CHAIRMAN. Now, we will say here is a man who wants to buy some paint and some oil. One dealer in the market has American oil. We have passed a bill requiring the high iodine test for American oil. We have passed a bill providing a low iodine test for South American oil——

Mr. HECKEL. Argentine oil.

The CHAIRMAN. Now, one dealer has one kind of oil and another has another. In order that the North American oil, which is assumed in this question to be the superior oil—should not be at a disadvantage with the inferior oil from Argentina, should there not be something on the package to indicate what kind of oil it is that is being sold?

Mr. HECKEL. That is a very drastic regulation to introduce into a Federal law, Senator.

The CHAIRMAN. Why is it drastic?

Mr. HECKEL. It means the reorganization of the entire industry. That seed comes from as far west as your own State (Missouri) sometimes when market conditions are favorable—it comes farther west, Minneapolis and Chicago sometimes. The freight is against it, of course. Now, it is not regarded in manufacture as an inferior oil. It merely requires an allowance for that fact, that the absorption power is always——

The CHAIRMAN. What kind of an allowance do you mean?

Mr. HECKEL. An allowance in manufacture and materials used with it.

The CHAIRMAN. Well, does it take greater or less material to be used with it?

Mr. HECKEL. It takes usually, I should say, a little more.

The CHAIRMAN. That makes it then an oil that has not as many uses or as high uses as the other oil.

Mr. HECKEL. Technically, there is no distinction made between them in practical use. There is no one, I think, who knows whether there is or is not a difference in the value of the two oils.

The CHAIRMAN. Could we get at it in this way, that there should be branded on every receptacle the iodine number test, without specifying what that test shall be—that the iodine test shall be there, and that it shall certify that it is pure oil?

Mr. HECKEL. Supposing, as dealers do, that the barrel is empty of the oil that it originally contained and other oil is then placed in it, or suppose the oil is shipped, as it commonly is, to large consumers in tank cars and then placed into the barrels that they have at hand.

Senator CUMMINS. But there are other tests, I suppose, that if not so important are at least important.

Mr. HECKEL. Yes; the only value of the iodine test that is recognized in the industry is that it is the determination of the purity, and the difficulty is setting a standard like this—allowing no limit to anybody who is concerned in the enforcement of the law—is as I said in the beginning that it is possible to take that oil with the high iodine number and reduce it with other oils, so that it shows the lower iodine number and still sells for higher iodine numbered oil. Now there are methods of detecting many of these adulterations and methods of detecting the others will undoubtedly be discovered. The principal point in my mind is to determine whether or not the

It is exactly only linseed oil. That is set forth in the description of the linseed oil that it is oil from the seed of a certain plant.

Senator CUMMINS. May I ask the chairman a question? I am not familiar with this bill as I have not studied it. Is it the purpose of the bill to secure pure oil or to determine the quality of the oil?

The CHAIRMAN. I suggest that you ask Senator Kenyon, as he is the author of the bill.

Senator KENYON. The purpose of the bill is that the shipment is to show just exactly what is contained.

Senator CUMMINS. But what I ask is——

Senator KENYON. There must be certain standards, of course.

Senator CUMMINS. I take it there must be a difference in the quality of pure linseed oil depending upon the character of the seed itself. Now, is it the intention to guarantee a certain quality of oil or simply that it is the product of the seed without adulteration?

Senator KENYON. If you will refer to section 6, Senator, you will observe that it establishes a standard for the purpose of this act and shows just what it means. Then, if you will refer back to section 2——

Senator CUMMINS. I ran across a very particular incident in our pure-food law in Hawaii last year. The people of Hawaii can not ship honey that is produced down there into the United States under our pure-food law because it is too sweet and does not conform to the standards that were laid down for pure honey. Although it is the pure stuff produced by the bees of Hawaii, they can not bring it in here; they have to send it to Europe.

The CHAIRMAN. Modern progressive legislation does not hesitate to regulate the habits of insects. [Laughter.]

Mr. HECKEL. I know it does not hesitate to regulate the habits of men.

The CHAIRMAN. Some of the habits of men ought to be regulated. The only thing we want to get at, all jesting aside, is a method by which we can secure the sale of an article for what it really is.

Senator CUMMINS. Is it not a fact that as to your association that you speak of, your objections are to section 10 of the bill; that is your main objection, is it not?

Mr. HECKEL. I am speaking for the varnish association, that is the main objection—but yet we think we ought to point out to the committee the danger in this part of the bill also with respect to turpentine. Another thing that I desire to say in passing is that the iodine number is limited there in that change to 190. Personally I should think it would be very unwise to put a higher limit, on the iodine number at least.

The CHAIRMAN. Why would you not have a high limit on anything? The higher the better is the rule, is it not?

Mr. HECKEL. Senator, there is an oil that the Paint Manufacturers' Association in conjunction with the Department of Agriculture is now trying to introduce into the United States, and into the agriculture of the United States, which has an iodine number of 200.

The CHAIRMAN. Is that objectionable?

Mr. HECKEL. We think it is not linseed oil, but we think it is for some purposes much superior, if we can establish it. If you will allow me I will just call attention to one other thing——

The CHAIRMAN. Well, I am interested in this, and I will tell you why I am interested. While I do not want at all to reflect upon the

departments of the Government, I do not want to be a party to very much legislation that turns over to the departments the right to make arbitrary rules. I think sometimes, with probably the best intentions in the world, they have made some rules that have greatly interfered, and unnecessarily interfered, with industry. So that when it is suggested that we pass a bill giving to some department of the Government the right to prescribe what shall constitute pure linseed oil or pure turpentine—merchantable linseed oil and turpentine—I should say under the bill you may find yourselves in the hands of a very competent, careful man, and you might find yourselves in the hands of a man who is entirely too technical or entirely too careless. So that if it is possible to suggest at least the limits of regulation, it ought to be done, in my opinion, in the bill.

Mr. HECKEL. Well, Senator, when you are dealing with a department of the Government which has certain discretion there is always a latitude for adjustment and a latitude for explanation. When you are dealing with a fundamental law which is prescribed by lawyers who understand nothing of technicalities, even after they are explained to them, you are dealing with a difficult proposition. I think the manufacturers of this country would rather have broad laws interpreted by experts than to have minute regulative laws passed with the consideration that can be given to a law by one session of Congress.

The CHAIRMAN. They made great complaints about some of the rulings of Dr. Wiley, I recall.

Mr. HECKEL. Yes, sir.

The CHAIRMAN. Without undertaking to pass on them, it seems to me some of those complaints were well founded.

Mr. HECKEL. Most of them are ill founded; some of them are well founded. I think that is so. Of course, a man has his limitations.

The CHAIRMAN. I am not saying these things to reflect upon Dr. Wiley at all. Have you any further suggestions that you desire to make?

Mr. HECKEL. Before we get to section 10, which is a vital one, I would like to call attention to section 8, regarding turpentine. Practically the same considerations apply to that as apply to my remarks regarding linseed oil, with the exception that in this case the American Society for Testing Materials has adopted a fixed standard. I have a copy of that and I will leave it with the reporter.

(The paper referred to is here printed in full, as follows:)

TURPENTINE.

1. These specifications apply both to the turpentine that is distilled from pine oleoresins, and commonly known as "gum turpentine" or "spirits turpentine," and to the turpentine commonly known as "wood turpentine" that is obtained from resinous wood, whether by extraction with volatile solvents, or by steam, or by destructive distillation.

2. The purchaser, when ordering under these specifications, may specify whether gum spirits or wood turpentine is desired.

The turpentine shall be clear and free from suspended matter and water.

3. The color shall be "standard"¹ or better.

4. The specific gravity shall be not less than 0.862 nor more than 0.872 at 15.5° C.

5. The refractive index at 15.5° C. shall be not less than 1.468 nor more than 1.478.

¹ The term "standard" refers to the color recognized as standard by the "Naval stores trade." Turpentine is of "standard" color when a depth of 50 mm. in a perfectly flat polished bottom tube approximately matches a No. 1. yellow Lovibond glass.

6. The initial boiling point shall be not less than 150 nor more than 160° C.

7. Ninety per cent of the turpentine shall distill below 170° C.

8. The polymerization residue shall not exceed 2 per cent and its refractive index at 15.5° C. shall not be less than 1.500.

The CHAIRMAN. In what respects does that differ from the provision of this bill?

Mr. HECKEL. It is much more complete. This bill says, "turpentine turps." This paragraph has evidently not been drawn by one who is familiar with the use of chemical terms. Spirits of turpentine is a very common description of turpentine, and it does not appear in this section. Oil of turpentine is practically never used in the paint and varnish trade. That is rather a medical term. "Turps" is a familiar painter's term. Stump turpentine is here mentioned. The common designation of that form of turpentine is wood turpentine. It may be distilled from pine-tree stumps or pine-tree sawdust or from the branches of pine trees, but it is generally known as wood turpentine. Now, wood turpentine, when properly produced and refined, is undistinguishable chemically from the gum turpentine, and to all intents and purposes it is precisely the same product. The only distinction that I think anybody really recognizes as characteristic is the distinction of odor, and our committee of the American Society of Testing Materials struggled quite a long time to find a standard definition for odors, and we gave it up. It is impossible so far as these technical men know to establish standards for odor. Therefore, they have set certain limits for a technically pure turpentine and have left it for the consumer, if he can, to determine by the odor whether it is wood turpentine or gum turpentine, or to designate in purchasing which he prefers.

The CHAIRMAN. Is there any difference from the standpoint of utility between the gum and the wood turpentine?

Mr. HECKEL. It is, I think, universally believed that there is no difference between a purely refined wood turpentine and gum turpentine—technically no difference from the point of view of utility.

The CHAIRMAN. Is the odor of the wood turpentine unpleasant any more so than that of the gum turpentine?

Mr. HECKEL. Properly refined wood turpentine to me is pleasanter than the gum turpentine. That is a matter of personal taste.

The CHAIRMAN. You think, then, that there is substantially no difference between the two?

Mr. HECKEL. I think there is substantially no difference.

The CHAIRMAN. And you suggest that the term be changed to "wood" turpentine instead of "stump" turpentine?

Mr. HECKEL. Yes, sir; and in this connection I would suggest that the standard specification of the American Society for Testing Materials be adopted.

The CHAIRMAN. And you have furnished a copy of that?

Mr. HECKEL. I have furnished a copy of that.

Senator BROUSSARD. Where do you refer to spirits of turpentine?

Mr. HECKEL. I said that in section 8, page 7, spirits of turpentine is not mentioned at all.

Senator BROUSSARD. Should that word "spirits" come in immediately after the word "product" and before the word "turpentine"?

Mr. HECKEL. "The product spirits of turpentine turps" instead of oil. Oil of turpentine, as I say, is a medicinal term. It is not

known in the trade—that is, at least not well known. There is no objection to leaving it in, but “spirits of turpentine” certainly should appear, because that appears on most of the turpentine barrels.

The CHAIRMAN. That is the common general name?

Mr. HECKEL. That is the common general term in the trade for it now.

Senator BROUSSARD. Just one more question with regard to stump turpentine. The turpentine is made out of the stumps of trees as well as from the sawdust?

Mr. HECKEL. That is wood turpentine.

Senator BROUSSARD. What does that term “wood turpentine” include?

Mr. HECKEL. All productions of that kind. That was the trade name for it in the beginning, when stumps only were utilized. That term came into use, but since they began to use the other waste products of the long-leaf pine the general term has been wood turpentine.

Senator BROUSSARD. I know it is wood turpentine. In Louisiana they term it “wood turpentine.” I know of some factories where they use the stumps alone, dig them up and extract the turpentine.

Mr. HECKEL. Yes, sir.

The CHAIRMAN. I suppose that could be easily covered by saying “wood or stump turpentine.”

Senator BROUSSARD. I think the word “wood” would cover the two.

Mr. HECKEL. It covers it all because the stump is wood. I would like to add just one word or two as the Senator is interested in this matter. Improperly refined wood turpentine contains a great many volatile materials which are injurious. Turpentine itself is, as you know, injurious, and some is peculiarly so. When it is properly refined to conform to the specifications which I have handed to the reporter, all those substances are removed and wood turpentine is believed to be quite as harmless as the ordinary gum turpentine.

Senator CUMMINS. Is the gum turpentine the turpentine that is made by tapping the trees?

Mr. HECKEL. The gum turpentine is made by tapping the trees, yes, sir; and unfortunately it is another disappearing industry in the United States, due to lack of proper conservation.

Senator BROUSSARD. It is fast disappearing.

Mr. HECKEL. It is fast disappearing; yes, sir.

The CHAIRMAN. I notice in this specification of standards which you have handed to the reporter, and which you ask to have adopted, there is a high and low limit placed to the test.

Mr. HECKEL. Yes, sir.

The CHAIRMAN. For instance, “the specific gravity shall be not less than 0.862 nor more than 0.872 at 15.5° C.” Why do you put the high test on?

Mr. HECKEL. This is a rather peculiar case. Because other materia's can be used to adulterate turpentine which will raise that specific gravity.

The CHAIRMAN. So you think it is necessary to set both limits, high and low?

Mr. HECKEL. Yes, sir; the turpentines have been tested all right by this special committee, and those limits have been determined as well within the range of purity. In other words, turpentine conforming to these limits in respect to gravity will be turpentine and nothing else.

The CHAIRMAN. Now, I take it from the general course of your remarks here that these societies of which you are secretary actually want adopted some legal regulation which will compel the production of pure linseed oil and of pure turpentine—and when I say pure, I mean pure in the sense that it is pure for the purpose to which it is to be put—that is, painting purposes—not pure, I suppose, in the sense of medicinal purposes. You actually want that?

Mr. HECKEL. Senator, I never heard of manufacturers coming to the legislature to ask for protective laws, outside of the tariff—they are always ready for that—but outside of that they can usually get along very well themselves.

The CHAIRMAN. You have chemists, and you have set up standards in your society?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. For what purpose have you done that?

Mr. HECKEL. For the purpose of protecting the consumer of the goods manufactured from these products. The consumer can not be legislated into an expert.

The CHAIRMAN. So you think it is necessary for somebody to set up a proper standard?

Mr. HECKEL. That is done in every department of commerce and industry.

The CHAIRMAN. But do you think that is necessary?

Mr. HECKEL. I do think that is necessary.

The CHAIRMAN. And you think it is so necessary that your societies have employed experts and have spent a lot of time, and I suppose a lot of money, in arriving at what constitutes a pure merchantable linseed oil and a pure merchantable turpentine?

Mr. HECKEL. Senator, do not misunderstand what I have said. I quoted these standards of the American Society for Testing Materials, but I am not secretary of that association.

The CHAIRMAN. Very well.

Mr. HECKEL. I was merely saying that the standards here in this bill are not the most approved standards, and was offering the most approved modern standards.

The CHAIRMAN. I understand now. The distinction is in speaking of your society having undertaken these tests whereas it is the society of—what is their name?

Mr. HECKEL. It is the consumers.

Mr. MACNICHOL. It is the American Society for Testing Materials.

The CHAIRMAN. That is the society that really made the tests?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. You say your society does want to protect the consumer because the consumer can not protect himself—he can not know?

Mr. HECKEL. The American society wishes to protect itself. It consists of the Government chemists, or very many of them, the railroad chemists, the chemists from manufacturers, and technical

chemists who are in the business in laboratories, etc.; in fact, it constitutes the testing chemists of the manufacturers of the United States, and those men have their own opinions, so that they may buy on equality—you understand that it is important that they should buy on equality, and they established these standard specifications and ordered many hundreds of them, so that the dealers, when they buy, will know what they are getting, sometimes.

The CHAIRMAN. Do they not always want to know?

Mr. HECKEL. I do not think they always want to know. I have heard of dealers who asked not to be told.

The CHAIRMAN. Those were the dishonest dealers, were they not, to put it flatly?

Mr. HECKEL. Will you allow me to make a Biblical answer?

The CHAIRMAN. Can not you answer it out of your own mouth instead of referring to the Holy Scriptures?

Mr. HECKEL. Well, the Holy Scriptures are very reliable.

The CHAIRMAN. But they have no reference to turpentine. What do you say to that?

Mr. HECKEL. I say that the dealer, an honest dealer, may not want to know because he can not know. I contend that the consumer or dealer can not be a technical expert or he would be in another line of business. He would not be a dealer if he were a chemical expert. The consumer would not be a consumer of paint if he was a paint expert; he would not be in that business because he would probably make more money out of it.

The CHAIRMAN. The substance of your answer is that these dealers do want to know and therefore they have their chemists, the Government chemists, and other technical men, and they undertake to arrive at a standard?

Mr. HECKEL. We are working at cross-purposes. You say dealers and I was thinking of paint dealers. The paint dealers do not enter into this; it is the large consumers in the United States, practically.

The CHAIRMAN. Whom do you mean by the large consumers?

Mr. HECKEL. The railroads, the Government, and large industrial establishments.

The CHAIRMAN. Let us get this matter cleared up. This society of experts—please tell me that name again.

Mr. MACNICHOL. The American Society for Testing Materials.

The CHAIRMAN. The American Society for Testing Materials is made up now of whom?

Mr. HECKEL. Largely of the testing engineers and——

The CHAIRMAN. Testing engineers of what?

Mr. HECKEL. Testing engineers and chemists of the industrial, manufacturing, and consuming industries of the United States.

The CHAIRMAN. When you speak of manufacturing, do you include in that paint manufacturers?

Mr. HECKEL. Yes, sir; I am a member of the society.

The CHAIRMAN. Very well; so that your paint organization and this other organization to which you referred as industrial, do employ chemists?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. To arrive at a standard of pure oils and pure turpentines?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. Why do the paint men interest themselves in that?

Mr. HECKEL. They interest themselves in that because they want to know exactly what they are buying. However, will you allow me to interject one remark. These standards are changed from year to year as investigation and knowledge proceed.

The CHAIRMAN. I understand that point.

Mr. HECKEL. The law is not changed.

The CHAIRMAN. I understand that, but the point that I want to get at is that the manufacturer when he goes into the market to buy wants to know what he is buying?

Mr. HECKEL. The paint manufacturer wants his chemist to know what he is buying.

The CHAIRMAN. Very well; and of course, the knowledge of the chemist is the knowledge of the manufacturer?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. So we get to the same point; the manufacturer wants to know that in order to protect himself, and he can not protect himself except through the instrumentalities of experts and the standards that have been worked out by the experts?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. If that is true now with reference to gentlemen who are engaged in the manufacture of paint, why should it not be equally true that it ought to be set up as a protection for the gentleman who puts the paint on his house?

Mr. HECKEL. I admit it, exactly, if you will employ the same sort of technical supervision and find out whether the standards are such as they should be. That brings us right down to section 10 referred to by Senator Kenyon. I claim on behalf of the Paint Manufacturers' Association that the formula label sets up a false and misleading standard of quality. I claim that it is perfectly possible to have two formulae on a paint can—both truthful—duplicate in every respect, and that the paint in the can shall be in the one case very bad and in the other case very good.

The CHAIRMAN. In other words, if I understand your answer correctly, you claim that you can take two kegs of paint, one with good paint in it and the other with bad paint in it, and yet each of them contain exactly the same ingredients in the same proportion?

Mr. HECKEL. As shown by the analysis.

Senator KENYON. The chemical analysis?

Mr. HECKEL. Yes, sir.

Senator KENYON. Of the same thing, one showing bad and one showing good?

Mr. HECKEL. Of the same thing; besides that, I think we can guarantee to take a—

Senator KENYON. Why do you object to this section, then?

Mr. HECKEL. Because it sets up a misleading standard, and causes great annoyance and trouble to the paint manufacturing industry.

The CHAIRMAN. What I understand the witness is referring to is this, that when you put upon the outside of a receptacle a true statement of the different ingredients inside, it does not follow that those ingredients are so compounded and mixed as to make a good paint, or as to make a bad paint; but you can take the same ingredients and by mixing them properly have a good paint, and with the same ingredients, by mixing them improperly, have a bad paint, so that when you have the label upon the keg it really tells you nothing.

Mr. HECKEL. It tells you nothing of the real value—nothing that is of real value to the consumer.

Senator KENYON. It shows the percentage of each ingredient, does it not?

Mr. HECKEL. Yes, sir; but it sets up a false standard.

Senator CUMMINS. I would like a further explanation of that.

Mr. HECKEL. It implies the quality and a duplicate label and a duplicate formula usually imply a duplicate quality.

The CHAIRMAN. Let me get at this in another way. Every cake that is baked in the country has a recipe for making the cake.

Mr. HECKEL. Yes, sir.

The CHAIRMAN. Let us say the old-fashioned pound cake—so much flour and so much sugar, and the other ingredients with which I am unfamiliar. One cook will take the materials exactly measured out and produce a good cake and another will produce a cake with the same identical materials that you can knock the clapboards off of the side of a barn with.

Mr. HECKEL. That is a very good illustration of what I mean, partly; but it can be done intentionally or can be done to save money.

Senator CUMMINS. That does not quite explain it to me. I know very little about this subject, although I know something about the laws respecting paints.

Mr. HECKEL. You have this law in your own State, Senator.

Senator CUMMINS. Unfortunately I am still inexpert upon the question. This label must show the name of each ingredient, must it not?

Mr. HECKEL. Yes, sir.

Senator CUMMINS. And the percentage of each ingredient has to be disclosed by chemical analysis?

Mr. HECKEL. Yes, sir.

Senator CUMMINS. Now take up two packages with the same label, one of which contains good paint and the other of which contains bad paint, and tell me why it is?

Mr. HECKEL. Let us take just the simplest case of all, illustrating something in your own State—oxide of iron, earth paint, a natural mineral paint. Some of those are mined in the State of Iowa, quite largely.

The CHAIRMAN. There is quite a large amount of red paint made in Missouri.

Mr. HECKEL. If one manufacturer grinds that, we will say with North American linseed oil and with carefully selected turpentine, with carefully selected dryers and materials of that kind, and thoroughly grinds it—thoroughly and properly grinds it—and goes through the proper process of manufacturing, he will produce a very good paint, because though that paint is a very complex material, nevertheless it makes very durable paint. Now, on the other hand, suppose he takes the same liquid ingredient but improperly grinds the paint and gets a coarse paint—you can make it so coarse that it is not paint at all—and yet the chemical analysis will show it to be the same thing. Therefore, it comes down to the point—and it is the contention which the manufacturers have made all the time—that the name of the manufacturer and the reputation of the manufacturer of the goods is of a great deal more importance than the chemical analysis. It implies not only certain ingredients purchased haphazardly and put together haphazardly, but it implies an organ-

ization that knows how to do it and has obtained a reputation by doing it properly.

Senator CUMMINS. I can understand that, but even the paint that is poorly put together is better than it would be if it were adulterated; that is, if the contents were not correctly stated?

Mr. HECKEL. Not necessarily so, Senator.

Senator CUMMINS. Well, suppose there were adulterated linseed oil in it——

Mr. HECKEL. It depends upon what it is adulterated with.

Senator CUMMINS. And adulterated turpentine in it, it would still be poorer, would it not, if made by the same manufacturer, than though poor linseed oil was used in it and poor turpentine was used in it?

Mr. HECKEL. You are getting into a very abstruse question—a very complicated question. I do not agree with that statement at all. First of all, I do not agree with the statement that purity, as implied in this act, is in any way synonymous with paint value. That is a technical question entirely. Poor linseed oil, for some purposes, is better than anything else for some paint purposes. For some other paint purposes it is entirely useless, and the same way with all the other materials that may be called pure adulterations. Now, I am one of those who believe, for example, that what are commonly called adulterations in moderate percentages are very useful in many paints.

Senator CUMMINS. Let me put it to you concretely. Suppose you were buying paint of a manufacturer who would be classed as a poor manufacturer. Would you buy paint from him, assuming that he was not high class in his work, rather have your ingredients stated on the container or not?

Mr. HECKEL. I would not buy of him in any case.

Senator CUMMINS. But if you did buy of him.

Mr. HECKEL. I do not think that would be any indication to me. I would rather try the paint; I would rather try it out on a board and see how it worked and to use my ordinary common sense and judgment to tell whether it was pure turpentine or not. I would use my nose—while I can not establish the standard by smell—I can usually tell whether it is benzine or turpentine.

Senator CUMMINS. But all people who use it may not have the same skill or the same perfect olfactory nerves.

Mr. HECKEL. I do not think, Senator, that the actual consumer is fooled very much, or so much as is assumed.

Senator CUMMINS. Then your position is, as far as applies to paint, that there is nothing in the question of adulteration at all?

Mr. HECKEL. No, sir; I do not agree with that at all. I do not assume that.

Senator CUMMINS. I mean to say that your position is that no one is helped by putting——

Mr. HECKEL. The formula label——

Senator CUMMINS. By putting on the formula label.

Mr. HECKEL. I think that any help that may be given by it is more than counterbalanced by the expense and inconvenience that it causes. That is at least from a selfish standpoint. Now, with the rest of the bill, with respect to the penalty against misrepresentation

and misbranding, I am in thorough accord. That is general legislation along the lines of preventing dishonesty.

Senator CUMMINS. Why should we have any law against adulterated linseed oil if adulterated linseed oil in some cases is better than pure oil. Why put it on any container?

Mr. HECKEL. Suppose that paint is sold as white lead; then, I believe there should be a penalty for that. The white lead is adulterated. That is provided for here in the section against misbranding and mislabeling. No man has a right to sell you or me or anybody else anything under a name that does not belong to it; under a misleading or false title. If he sells me white lead, I want white lead. If he sells me chrome yellow I want chrome yellow, and so on down the line. But if he sells me paint he is selling a very complex product of industry, and I naturally must rely more on his ability to produce a proper product than on my own ability to determine whether the ingredients he uses will or will not make a proper product.

Senator CUMMINS. Then, your view is that the law against adulteration should apply only to primary products and not compounded products?

Mr. HECKEL. I really do not see how you can make a law against the adulteration of paint. Most of the pigments in their nature are adulterated to begin with. Some of the most important of our colors vary in chemical composition continually and constantly.

Senator KENYON. Without section 10 there would be no case of adulteration. You can adulterate all you please under section 10.

Mr. HECKEL. I do not understand that to be so, Senator.

Senator KENYON. That section was in the Pennsylvania law, was it not?

Mr. HECKEL. It was stricken out of the Pennsylvania law.

Senator KENYON. All of it?

Mr. HECKEL. All of it regarding the formula label. The rest of it remained.

Senator KENYON. Were there any hearings on that before any committee?

Mr. HECKEL. Yes, sir; there were hearings on that.

Senator KENYON. Who represented you in those hearings?

Mr. HECKEL. I was one; there were a number of us up there. The final argument was presented by Mr. Jones, of Philadelphia. It says in this section 12:

If the package containing it or its label shall bear any statement, design, or device regarding the ingredients or the substances contained therein, which statement, design, or device shall be false or misleading in any particular.

Now, that simply means that he must not misname any product which he sells. If he sells paint, he sells paint; and the formula on a can will not determine whether that paint is good or bad.

The CHAIRMAN. Let me see if I understand you. Your position is this: If you take a can and mark it "paint"—red paint, or white paint, or blue paint, or any other colored paint, and that is all you put on it, you think you ought to have a right to sell it, if the purchaser buys it in that case, without any misrepresentation of anything at all except that it is paint with no guaranty except the name of the manufacturer that appears on the receptacle?

Mr. HECKEL. Yes, sir; exactly.

The CHAIRMAN. But if he puts on his can "white lead," then he must have pure white lead?

Mr. HECKEL. Yes, sir; exactly.

The CHAIRMAN. If he puts on "chrome yellow," he must have chrome yellow?

Mr. HECKEL. Or else something to indicate that it is not pure chrome yellow.

The CHAIRMAN. Yes. If he says nothing about the kind of oil that is employed in either case in any of these cases, he can put in any kind of oil he wants to; but if he says "linseed oil," then it must be pure linseed oil?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. If he says nothing about turpentine, he can put in any kind of turpentine he wants or any substitute; but if he says anything about turpentine he must have turpentine?

Mr. HECKEL. Exactly.

The CHAIRMAN. That is your theory?

Mr. HECKEL. That is my theory.

The CHAIRMAN. Let me see if there is not a large-sized hole in the protection. I am trying to get at the facts about this. A man comes to buy paint or white lead and the lead that is in that can or barrel, or whatever it is, is pure lead. It is branded "white lead." Now nothing is said about the oil, and the manufacturer of that paint has put in an adulterated oil. Nothing is said about the turpentine. The manufacturer of the paint has put in an adulterated turpentine—

Mr. HECKEL. He probably will.

The CHAIRMAN. Now, how is the consumer to be protected under the rule you laid down against two latter evils—the adulterated oil and the adulterated turpentine?

Mr. HECKEL. Suppose the linseed oil is desirable in paint in preference to anything else? Do you not suppose with such a law as this that the manufacturer will be the first to seize that advantage and say his white lead is ground in pure linseed oil? They do it to-day.

The CHAIRMAN. If he figured it as an advantage, could he regard it as a disadvantage to say in the law that he should do it? If there is a commercial advantage and a business advantage to him to put it on, it could not be any disadvantage to him, could it?

Mr. HECKEL. I think I can give you an illustration right at this present moment regarding that. The objection is more a business objection than anything else. To-day I doubt if all of the paint—in fact, I am very sure that not all of the paint on the market is as it is labeled or represented, because some of the materials called for on these labels are not obtainable at any price in the whole world, and will not be until the British Government lifts the embargo. At the present time either you or myself have to pay four or five or six or eight dollars a pound for what cost 25 or 30 cents a pound a year ago. We can not get it at all. Or the man must change his label and throw away the label he has and get a new label.

The CHAIRMAN. Your objection is to having to print a new label?

Mr. HECKEL. Yes, sir; and to explain why the formula was changed.

The CHAIRMAN. About how long do you think it would take a man to take an old label off, if any of the ingredients could not be obtained and something else had to be substituted, and run a pencil through the old ingredient and write the new one in, and write at the bottom something like this: "We have been obliged to substitute blank for blank, formerly used, because it is not obtainable in the market. The material we are using we recommend to our customers," and any other nice pleasant thing that you want to say about it—about how long would it take an ordinary \$50 a month clerk to do that?

Mr. HECKEL. On 4,000,000 gallons of paint, divided up for the trade and for the Government?

The CHAIRMAN. How long would it take to change any label?

Mr. HECKEL. It means a whole line of labels and it means a very long list of labels. To some manufacturers it would mean several million paint cans.

The CHAIRMAN. When you change the old ones, the printing office can reproduce them with some rapidity, can they not?

Mr. HECKEL. Those labels are not only printed but pasted, and I do not know any manufacturer who would change in that way. One of the principles of advertising is that the package must be attractive, and I do not know any manufacturer who would change in that way. They would have to change the whole thing or not at all.

Now, another point is that every time some new material of value which is good and cheaper is discovered after a time it goes into the paint. There are quite a number of them. There are new materials now that the Department of Agriculture has found to introduce into the United States. Some of them have various properties which will eventually improve the paint which is sold. There are two oils that I have in mind that are very promising, but we must revise the formula, with an explanation to the dealer and consumer, who is educated to believe, if he pays any attention to it, that the formula on the can represents the perfection of the paint manufacture. Now, what the industry thinks is, that, first of all, the label will not accomplish this purpose. The consumer does not know when he reads that label whether the paint is good or bad. It has not been the experience that the consumer has for very long looked at the label. Therefore, as far as the protection of the consumer is concerned, it is not important in the minds of the manufacturers. On the other hand, it is a very great trouble and considerable expense to the paint manufacturer himself, and sometimes would involve him, through no fault of his, in great difficulties, especially if he were prosecuted by a Federal court. I have had myself cans wrongly labeled as to color and as to contents.

The CHAIRMAN. By mistake?

Mr. HECKEL. By mistake.

The CHAIRMAN. You know that the law does not hold a man for mistakes?

Mr. HECKEL. I am aware of that, but it is no little trouble to appear before a Federal court and prove all of that. It is quite as expensive and inconvenient to hire a lawyer to prove yourself innocent as to get away with it if you are guilty.

The CHAIRMAN. There would be some difficulty attached to that for misbranding, but how about the difficulty if a man paints his house and then has to paint it again next year?

Mr. HECKEL. He can use the best paint in the world and that will appen every now and then.

The CHAIRMAN. I am speaking of the cost and the trouble that rises through the use of the wrong paint, the paint he should not use?

Mr. HECKEL. I believe myself that 9 times out of 10 the trouble rises more from wrong conditions than from wrong paint. A man who will paint in damp weather or will paint on a damp surface, will have trouble no matter what paint he uses, and the formula would not protect him. If he tries to paint a greasy surface he will have trouble and the formula will not protect him. The answer to that is to employ competent workmen to do the work.

The CHAIRMAN. I am speaking about two difficulties in the contract, one where you are making paint and you carelessly label the package, and you say, carelessly, "This is pure white lead," and when, as a matter of fact, it is an adulterated product that you are producing in your factory. Now, you may be arrested for that, and it may cause you some trouble, that is granted. But how about the trouble of the painter who took that paint, and which looked absolutely like the genuine article, and put it on a building, perhaps painted the interior of a great office building, and then had the job come back on his hands. Do you not think his troubles should be somewhat considered?

Mr. HECKEL. If it occurred——

The CHAIRMAN. Of course I am assuming that it occurred.

Mr. HECKEL. Now, Senator, you have heard no painter in any testimony state that he uses that kind of lead by mistake. They know exactly what lead they buy and use, and they know exactly what is in it. Sometimes there may be cases where they do not know, but as a rule the painter knows what he is using, and at least he knows that he can get exactly what he wants, and as far as the painter is concerned, he need not be deceived unless he wishes to be.

The CHAIRMAN. There was some testimony given here the other day with respect to that——

Mr. HECKEL. I heard a little of it.

The CHAIRMAN. In which four different qualities of paint were produced, about which one man testified, and the others said they agreed with his statement—I took that method of abbreviating the hearing—that the paints could not be detected by anything save a chemical analysis, and that the life of certain of those paints was about half that of the pure paint.

Mr. HECKEL. Yes, sir. Not one of those painters who testified, I think I am safe in saying, ever used any one of those brands of paint, or were in danger of using them. I will say that I myself have, since being secretary of the association, been endeavoring with others to correct a great many of these abuses. I want to correct one statement that I heard made here and that is that adulteration came in with the mixed paints—I think it was in response to a leading question by you, Senator. Adulteration began before the memory of man began. Adulteration of paint began when the paint manufacture began. White lead was adulterated before mixed paint was thought of. White lead was very commonly adulterated. I have in the records of my office a memorandum of one very prominent manufacturer not now living—it was a separate corporation that manufactured about 5,000 tons of white lead a year, a white lead manufacturer and 1,000 tons of that was pure lead, and most of it

was sold to the paint manufacturers for use in their products. The rest was sold in different degrees of adulteration under fancy brand to hardware stores and dealers throughout the country. That was long before there was any mixed paint.

The CHAIRMAN. Did you try to suppress that?

Mr. HECKEL. That was suppressed by the sale of the corporation to a large manufacturing interest.

The CHAIRMAN. They did not buy the corporation to stop this adulteration, did they?

Mr. HECKEL. Not for that purpose, but self-interest usually corrects those things. When the large lead corporation was formed, it was thought a wise policy to manufacture one grade of lead only, a pure lead, and to sell that under various brands and to suppress all the graded leads, as they were called. No white lead manufacturer adulterates lead to-day.

The CHAIRMAN. I did not quite understand you a while ago. I understood you to say that you had had a great deal of trouble running down the adulterators of lead?

Mr. HECKEL. Exactly—those leads that were shown here, one of them labeled, "The Bridgeport Wood Finishing Co." That is white lead. The lead has been taken off that package since the hearing in Pennsylvania last year.

The CHAIRMAN. Why do you have this trouble?

Mr. HECKEL. Because there are some manufacturers, some of the smaller manufacturers especially, who have inherited this practice, of which I do not approve at all, of branding white lead, produce white lead as white lead. That was a custom that was handed down from the fathers of the white lead industry, not to the paint manufacturers.

The CHAIRMAN. Now avoiding all questions about moral turpitude involved, as I understand you, there has been an adulteration of white lead for a great many years.

Mr. HECKEL. Yes, sir.

The CHAIRMAN. You cited one instance of a large manufacturer who manufactured 5,000 tons of white lead—alleged white lead, but only used 1,000 tons.

Mr. HECKEL. That was before 1870.

The CHAIRMAN. But he only used 1,000 tons of the white lead?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. That was before 1870, but that same course of adulteration in some degree has been pursued by a large number of paint manufacturers from time to time?

Mr. HECKEL. From time to time. It is almost eliminated to-day.

The CHAIRMAN. Now, you stated, as I understood you, that you had had a lot of trouble in getting these things eliminated?

Mr. HECKEL. No.

The CHAIRMAN. Or there had been a lot of effort made to eliminate it?

Mr. HECKEL. Yes, sir; wherever found.

The CHAIRMAN. Who caused this effort to be made?

Mr. HECKEL. The paint manufacturers themselves.

The CHAIRMAN. And why?

Mr. HECKEL. Because they did not believe that false labels should be used.

The CHAIRMAN. But why not use any kind of label if the paint is just as good?

Mr. HECKEL. That is a question of quality of the paint. Many of those paints are superior, I believe, to the pure white lead—many of them—but it is not white lead. If I go to buy a pound of brass, I want brass and not gold, even though it is more valuable. Gold will not serve me for brass.

The CHAIRMAN. So that there is at some point anyway along the line of handling these paints where somebody wants to know that they are pure; wants to know what they are; he wants to know what he is buying?

Mr. HECKEL. Undoubtedly, and he knows the meaning of them when they are pure.

The CHAIRMAN. Now, that is a rule which ought to exist for the ultimate consumer the same as the manufacturer, ought it not?

Mr. HECKEL. There is no such thing as purity in complex material.

The CHAIRMAN. But the right to know what he is buying ought to interest the consumer the same as the manufacturer, ought it not?

Mr. HECKEL. I think that is debatable—I think that is very debatable.

The CHAIRMAN. You simply say that if you tell him that the thing does contain a certain thing, it must contain it, but if you say nothing, he buys taking the chance?

Mr. HECKEL. He takes the chance even if I do tell him what is in it. He takes a very large chance.

The CHAIRMAN. That depends upon how truthful a man might be.

Mr. HECKEL. If he takes a chance, he simply takes it. If he finds a well-known article which has proved of value, I do not think his knowledge of the value of that material is going to be improved by the formula on the can. As for the painters, I do not think they buy on the formula at all. I think as far as the materials they buy go, they test them, if they are competent, every time. The thinners test their thinning value and others make the tests of the other materials, as to their fineness, their spreading capacity, etc. But I do not think that painters as a class are very much fooled as to any of these white leads.

The CHAIRMAN. If this bill was passed with section 10 out, the other sections would protect the manufacturer so that if he went out and asked for white lead he would know he was getting it, or that the man who sold it had committed a crime?

Mr. HECKEL. He does not know any law to protect him in his purchase. He buys single materials, materials of definite composition for which there is a standard, but it is a matter of test as to the manufactured article—as to the qualities you require.

The CHAIRMAN. Suppose the bill was passed with section 10 out, would it do any good?

Mr. HECKEL. I think it would do a great deal of good.

The CHAIRMAN. What good would it do?

Mr. HECKEL. It would eliminate every case of misrepresentation that I heard about and saw presented here in the evidence last week.

The CHAIRMAN. But you hold that the misrepresentation does not do any harm?

Mr. HECKEL. I do not hold that misrepresentation never does any harm. The point I make is that unless there is a very great good to be served to the general public, it is not wise to hamper industry.

The CHAIRMAN. What good would be subserved with section 10 eliminated?

Mr. HECKEL. You mean what reforms would be effected?

The CHAIRMAN. What good would come to the consuming public or to the manufacturer? I am anxious that the manufacturer should have fair treatment.

Mr. HECKEL. I do not know that there would be any special good to the consuming public or to the manufacturer. I do not think the painters, as a rule, buy ignorantly. In some of the colors they make possibly they may be defrauded. I do not know. But they know as a rule that the price determines the quality of the actual colors they get, and they have their tests which are very simple, and which they always make as to color value. The general public does not know, nor will they ever know, whether an adulterated color is better or worse for being adulterated. There is one color which every consumer thinks is very much better for being highly adulterated, and that is chrome green. Chrome green is an unusable color in its pure state. It is not a pleasant color at all. It is a beautiful green, say made of about 25 per cent pure color and 75 per cent of barytes; it is well known, and if the consumer were warned that it contained 75 per cent of adulterant, I think he would be very much misled if he tried to buy pure chrome green and use it.

The CHAIRMAN. Would you object to a bill going to the extent of saying what kind of oil was used in grinding the paints?

Mr. HECKEL. I think it would be very unwise because paints are good for very many purposes, and, as I said in the beginning of my remarks about linseed oil, there are some purposes for which linseed oil is totally unfitted in paint.

The CHAIRMAN. Then you would not say there was linseed oil in it. You would say there was something else in it?

Mr. HECKEL. They do not say there is linseed oil in paint. Some manufacturers say "pure linseed-oil paint." If a bill was passed and they said "pure linseed-oil paint," it would have to be pure if that section was out.

The CHAIRMAN. Would that do any good if it was in the bill?

Mr. HECKEL. I think it would prevent a man from lying in the trade. I think honesty is always the best policy.

The CHAIRMAN. I have asked Mr. Heckel all the questions I care to ask.

Mr. DEWAR. May I ask the gentleman one or two questions?

Senator CUMMINS. I would like to ask a question.

Mr. DEWAR. I beg your pardon.

Senator CUMMINS. I take it that your objection to labeling paints is simply one of cost and trouble?

Mr. HECKEL. Cost and trouble and the tendency to hamper industry and hamper improvement.

Senator CUMMINS. How much would it cost as compared with the present method to print a label of that sort instead of the one you now have?

Mr. HECKEL. Well, it depends. That is pretty hard to say. The Sherwin-Williams Co., I think, wrote me that they used several thousand pounds of paper in making their labels.

Senator CUMMINS. You put some kind of label on now?

Mr. HECKEL. They put some kind of label on now. It is usually photographed on stone, not printed.

Senator CUMMINS. But after you cut your stone it would be a mere matter of printing, would it not?

Mr. HECKEL. Undoubtedly, and it is a matter of change every time the formula is changed.

Senator CUMMINS. How often are the formulas changed generally speaking?

Mr. HECKEL. If I were a manufacturer they would be changed very often. The progressive manufacturers, I think, have been accustomed to change formulas quite frequently.

Senator CUMMINS. Could you give us some idea as to how often these changes are made in the present method?

Mr. HECKEL. No, sir; I could not. They vary from time to time according to the qualities of the various ingredients. For instance, white lead is not always the same physically; that is, the same material. Zinc oxide is not always physically the same material. There is a variation, for example, in the liquid required in one lot and the liquid required for the other.

Senator CUMMINS. You do not put these elements on at all now; you do not name them?

Mr. HECKEL. The liquid ingredients; yes; wherever required in this bill.

The CHAIRMAN. The objection is to stating the ingredients, that it will make a lot of changes in the labels?

Mr. HECKEL. Not only that, but it does a whole lot more.

The CHAIRMAN. But that is one objection?

Mr. HECKEL. Yes, sir; that is one objection. I have set forth that in a letter.

The CHAIRMAN. Let me deal with that—one phase of it. I have a label here, marked "Exhibit 4," appearing in the last hearing as follows [reading]:

Label 516. Royal White lead. E. P. & V. Co. M. B. Cochran, president, Pittsburgh, Pa. Net weight, 24 lbs. 5 ozs. Analysis of pigment. White lead, 43.32 per cent; lead sulphate, 0.54 per cent; zinc oxide, 11.60 per cent; barium sulphate, 42.28 per cent; silica and silicate, 1.67 per cent; undetermined, 0.59 per cent. Total, 100. The term "Royal White lead" should indicate a good product; that is, some special brand of pure white lead; but the analysis does not bear out this conclusion, for less than half of the product is white lead, and it is largely adulterated with barytes.

That is the analysis.

Mr. HECKEL. Yes, sir. Now that label——

The CHAIRMAN. That would be difficult to put on, would it?

Mr. HECKEL. That label could not be used if the formula part of this were stricken out.

The CHAIRMAN. Now let me get another label. That was the analysis I read you.

Mr. HECKEL. There the label says "Royal White Lead." That could not be used even if you had no formula on this label.

The CHAIRMAN. Here is a label, Exhibit 11 [reading]:

The Lawrence colors. Refined lamp black. Ground in pure linseed oil. W. W. Lawrence & Co. Pittsburgh. 12½ lbs.

Over at the right of the label is the following:

No. 302. Carbon, 100 per cent. Ground in pure linseed oil.

Now, there is a representation of the contents of that package, is it not?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. Put on there voluntarily by the manufacturer?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. If the law said he should put it on it would not impose any additional difficulty, would it?

Mr. HECKEL. He puts it on anyway. Every manufacturer puts that on because that is a single chemical compound. I very much doubt that that label is correct, because lamp black is not 100 per cent carbon, Senator. Do you catch that point? That label is undoubtedly incorrect, because lamp black is never 100 per cent carbon.

The CHAIRMAN. It does not cost any more to print the truth on a label than it does a fraud and falsehood—speaking simply of the printing cost?

Mr. HECKEL. That is a falsehood under this law. If this law is strictly applied by the Federal Government it would mean that a man saying that he has 100 per cent of lamp black could be prosecuted.

Senator CUMMINS. You say that would not be true because it would not be specific?

Mr. HECKEL. I say——

The CHAIRMAN. I am only dealing with one point now—this alleged difficulty arising from the cost of printing on the labels the contents of the packages.

Mr. HECKEL. I did not mention the cost especially. I mentioned the difficulty, the trouble, the inconvenience, and the explanations that must go with that change.

The CHAIRMAN. Let us include them all. Now, here is a gentleman who voluntarily does it. This label is marked "Exhibit 11," which was introduced at the former hearing. It reads:

Masury's liquid colors. The best in the world. White. Warranted pure linseed-oil paint.

Then over on the side is "Composition," and under that head is the following:

Paint: Pigment, 60.5 per cent; vehicle, 39.5 per cent; total, 100 per cent.

Then the composition under that head is:

Pigment: Zinc oxide, 55 per cent; basic lead carbonate, 45 per cent; total, 100 per cent.

"Vehicle"—under that head:

Linseed oil, 88 per cent; drier, 12 per cent; total, 100 per cent.

Mr. HECKEL. I am very familiar with that.

The CHAIRMAN. The gentleman has put on all of his ingredients.

Mr. HECKEL. Voluntarily.

The CHAIRMAN. I do not know; it is on here now.

Mr. HECKEL. The gentleman who made that change died from the worry incident to the change.

The CHAIRMAN. Incident to this change?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. What was his physical condition before, then?

Mr. HECKEL. His physical condition was not good, but he probably would have lived for many years. He worried himself over the North Dakota law.

The CHAIRMAN. Over putting that on the keg?

Mr. HECKEL. This is one of several hundred colors.

The CHAIRMAN. He already has to put it on under the laws of some states, so if he had survived, he would not have had any additional work to comply with this law?

Mr. HECKEL. I think some of them here will tell you whether they have had any additional work or trouble at this time in the present condition of the color trade.

The CHAIRMAN. Now I will call attention to Exhibit 13, as an illustration of the formula work:

Heath & Milligan Manufacturing Co. Best prepared paint. Gray. Chicago. Analysis: Pearl gray. One United States standard one-fourth gallon. White base, 0.60 per cent; coloring matter, 0.07 per cent; linseed oil, 34.69 per cent; turpentine, 55 per cent; japan, 1.57 per cent; petroleum spirits, 0.79 per cent; water, 0.73 per cent; total, 100 per cent. Pigment: White base, 99.88 per cent; coloring matter, 0.12 per cent. Liquid: Linseed oil, 82.21 per cent; turpentine, 3.95 per cent; japan, 4 per cent; petroleum spirits, 2 per cent; water, 1.84 per cent; total, 100 per cent. White base: Lead carbonate, 19.26 per cent; lead sulphate, 19.16 per cent; zinc oxide, 46.58 per cent; barium sulphate, 10 per cent; calcium carbonate, 5 per cent.

The coloring matter is indicated here by two stars as "lampblack" and "carbon." Now, that gentleman puts all on his can now.

Mr. HECKEL. Yes, sir; but what good does it do the consumer?

The CHAIRMAN. I do not know.

Mr. HECKEL. Can you imagine a consumer reading that formula and getting anything of value from it? Does it protect him?

The CHAIRMAN. I could imagine a painter engaged in the business reading it and getting a good deal out of it.

Mr. HECKEL. A painter engaged in business can say to the consumer, "This is a mixed paint: look at the formula. We will put lead and oil in your building."

The CHAIRMAN. But a man going now to buy this stuff, has he not a right to know what is in it?

Mr. HECKEL. I do not know whether he has or not—if he has the knowledge necessary to interpret it.

The CHAIRMAN. Here is Exhibit K 3:

Masury's pure colors. Ground in pure linseed oil. 1 pound. Prussian blue, etc.

Here follows again the composition. I am not going to read it, and I do not think we need pursue this inquiry further. I think, though, that the other members of the committee will agree with me that the former testimony, taken at the last hearing, should be included in this hearing, all printed together. I do not care to ask Mr. Heckel any further questions.

I desire to read a telegram which I have received, as follows [reading]:

St. Louis, Mo., April 10, 1916.

Hon. JAMES A. REED,
1956 Biltmore Street, Washington, D. C.:

On behalf of C. A. Wood Preserver Co., which I represent as counsel, and of which I am treasurer, I desire to urge passage of the pure-paint law, and that the bill be drafted or amended to include wood preservatives, creosote oils, carbolineums, and similar products. Many pseudowood preservatives are sold, and their inefficiency as such can not be practically demonstrated until after many years or the period within which wood normally would decay. We have communications and signed petitions from practically 2,000 consumers in the United States urging the passage of a pure wood-preserver law.

MANTON DAVIS.

I would like to ask you, Mr. Heckel, what you have to say about these articles referred to in the telegram which I have read?

Mr. HECKEL. I have nothing to say about them.

The CHAIRMAN. Do you know anything about them?

Mr. HECKEL. Yes, sir: I know something about them. I have no comment to make upon that. I think it is very clever.

Mr. DEWAR. May I ask the gentleman a question, Mr. Chairman?

The CHAIRMAN. Yes.

Mr. DEWAR. I would ask the gentleman if he is the author of these general paint specifications [indicating]?

Mr. HECKEL. No, sir; I am not.

Mr. DEWAR. They were sent out by a company which you are interested in?

Mr. HECKEL. They were.

Mr. DEWAR. And it was you that sent them out broadcast throughout the country?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. You have said, "this specification." Have that marked.

(The paper referred to is marked "Exhibit 29," and is here printed in full, as follows:)

EXHIBIT 29.

THE NEW JERSEY ZINC CO. ENGINEERING DEPARTMENT SPECIFICATION NO. (—) —GENERAL PAINT SPECIFICATIONS.

Woodwork exterior.—The surface shall be carefully dusted immediately before painting, all knots and resinous spots to be washed with turpentine and given one coat of grain alcohol shellac before priming, care being taken that the shellac coating does not cover more surface than is necessary to cover the defective spot.

A priming coat, followed by two additional coats, shall be applied. If the wood to be painted is cypress, the priming coat shall contain in addition to the other "thinners" used, one-half pint of solvent naphtha (benzole) or of toluol to the gallon of paint ready for the brush.

If the wood be yellow pine, the priming coat shall contain one-half pint of pure wood or gum turpentine to the gallon.

The white paint to be supplied, either as a body color or as a base for tinting, may be, according to agreement in each case, a ready-mixed paint of approved composition, or a semipaste paint of approved composition.

Whatever form of paint may be selected, the pigments shall contain not less than 45 per cent zinc oxide in any case. The composition of the pigment shall closely approximate the following percentages, excepting in those cases where a higher zinc oxide content is specified, in which cases the percentages of the other ingredients shall be correspondingly lowered:

	Alternative formula.			
	Per cent.	Per cent.	Per cent.	Per cent.
Zinc oxide.....	45	50	50	50
Basic carbonate white lead.....	20	20	35	50
Basic sulphate white lead.....	25	20	.....	.....
Asbestine or silex or barium sulphate.....	10	10	15	.....

In other words, 45 per cent must be the low limit for zinc oxide and 15 per cent the high limit for inert, the remaining pigment consisting of basic carbonate white lead or both basic sulphate and basic carbonate white lead in the proportions shown.

A 50 per cent zinc oxide 50 per cent basic carbonate white lead paint is considered acceptable under these specifications.

If a semipaste paint is used, the pigments shall be ground in pure raw linseed oil, without volatile thinners or dryers, the percentage of such oil to be not less than 24 per cent of the total weight of the completed paint.

For application, this paint shall be suitably reduced for the several coats by the painter, by adding as he deems necessary, the requisite liquids. For such reductions he shall use nothing excepting pure raw linseed oil, having iodine value (Hanus) not less than 175, pure turpentine and liquid dryer (with the exception noted above as to the use of benzole or toluol on cypress). The total percentage of turpentine and liquid dryer shall not exceed 5 per cent of the total weight of the completed paint. The liquid dryer or japan used shall contain no rosin nor rosin compounds.

If a paste paint is used, it shall conform in every respect to the specifications for semipaste paint, excepting that the proportion of pure raw linseed oil used for grinding shall be reduced to the extent necessary. The restrictions for mixing and reducing to working consistency shall be the same as for semipaste paint.

If a ready-mixed paint is used, the specifications as to the white and liquids shall be the same as for semipaste paint, excepting that in this case the volatile thinners, the driers, and the tinting colors shall have been added in the process of manufacture. In that case the proportion of pure raw linseed oil in the completed paint shall in no case fall below 31 per cent, the total percentage of volatile thinners (which may be either turpentine or petroleum spirit) shall in no case exceed 5 per cent, including that contained in the liquid drier; the moisture shall not exceed 1 per cent; and the paint shall contain no rosin acids. The coloring matter used for tinting shall be commercially pure pigments.

Such paint shall be applied as furnished, excepting that the painter may add, as conditions require within the specifications, pure raw linseed oil, turpentine, or benzine or pure tinting colors.

No painting is to be done in wet or humid weather nor when the temperature is below 40° F.

All nail holes, cracks, and similar breaks in the surface to be stopped with linseed-oil putty after priming.

Not less than three days of 24 hours each shall be allowed for the drying of each coat before succeeding coat is applied.

When tints are specified, the tinting shall be done with the use of pure linseed-oil colors.

Old work—Repainting.—All loose or loosely adherent paint shall be removed by scraping, sandpapering, etc. Where necessary, old paint shall be removed by burning or with paint and varnish remover, as may be agreed.

All work shall be carefully dusted before painting. Rough spots shall be smoothed by sandpapering, and defective spots shall be properly treated.

The paint used and the restrictions in regard thereto shall be the same as specified for new work.

One or two coats shall be applied, as may be mutually agreed upon as necessary.

Within the limits of composition as above noted, the reductions necessary for the several coats shall be in the discretion of the painter.

Iron and steel (excepting galvanized iron).—All loose mill scale and all rust shall be thoroughly removed before painting by the use of hammers, scrapers, and wire brushes, and all grease shall be carefully washed off with benzine. Three coats of paint shall be applied.

The pigments for the priming coat shall consist of 85 per cent iron oxide and 15 per cent zinc oxide. It may be purchased either in paste or ready-mixed form with the zinc oxide incorporated in the process of manufacture, or it may be incorporated by the painter by means of suitable and proper apparatus. (The oxide used shall contain no free sulphur, sulphates, or acid, and shall contain not less than 60 per cent of pure unhydrated ferric oxide, without admixture of any compound of calcium, barium, aluminum, or magnesium.) The oil contained shall be pure raw linseed oil. The only constituents allowable besides those named shall be turpentine or benzine and liquid dryer, which shall be free from resins or gum resins and resin compounds—in other words, the dryer shall be a pure oil dryer, reduced if desired with turpentine or benzine or both.

The second and third coats shall be any approved pure linseed oil paint of the desired color, though it is specified that where white or a tint requiring the use of white is necessary the white paint used shall conform in all respects to the specifications governing similar paint on woodwork.

For repainting the specifications shall be the same as for new work, with the omission of the specification in regard to the priming coat, all loosely adherent paint to be removed before painting, all rust to be removed by sandpapering or scraping, and bare

spots to be given a preliminary coat of paint, which shall be allowed to dry properly before the first coat is applied.

Galvanized iron and copper.—Specifications for painting galvanized iron and copper to be found in Appendix —, attached hereto.

Cement and concrete.—Specifications for painting cement and concrete will be found in Appendix —, attached hereto.

INTERIOR WORK.

Woodwork.—For interior woodwork when painted the same specifications shall for the present apply as for exterior woodwork.

Plaster and cement surfaces (excepting floors).—If the surface to be painted shall have stood less than one year it shall be treated before painting with a saturated solution of zinc sulphate in water (about equal parts by weight of each). The surface shall be thoroughly coated with this solution applied by a broad, soft brush (a kalsomine brush) and allowed to stand not less than 48 hours before painting. The priming coat on such surfaces, whatever the subsequent finish, shall be made from a flat wall paint or wall finish containing oxide of zinc, lithopone, etc., but free from pigments containing lead in any form. To this paint, for the priming coat, shall be added about 30 per cent of pure raw linseed oil.

If the finish desired is a flat washable finish, the subsequent coats (one or two as may be desired) shall be the same paint as the priming coat, excepting that no oil shall be added by the painter.

If an oil paint finish is desired the subsequent coats (one or two as may be required) shall be any approved pure oil ready-mixed paint, conforming to the specifications for exterior work, excepting those cases in which lead pigments would be of no advantage or undesirable, in which cases an approved lithopone may be substituted for the lead pigments. In the latter case no dryers or other lead compounds shall be added.

Enamel finish.—Where such finish is to be produced on plaster or kalsomined surfaces the preliminary treatment and the priming coat shall conform in all respects to the foregoing specification, the priming coat being what is commonly known as "flat wall finish," which, if white or a tint is required, shall contain oxide of zinc as an ingredient. The color to be selected for this priming coat is left to the judgment of the painter, in accordance with the effect required in the completed work.

Over the priming coat not less than two additional coats shall be applied, the exact number of coats to be specified in each case. If only two coats besides the priming coat are required, the first of these coats shall be an enamel paint or varnish of acceptable quality, and the finishing coats shall be composed of similar enamel and an approved flowing varnish in equal proportions.

If the enamel used contains any white pigment not less than 50 per cent of such white pigment shall be oxide of zinc.

If more than two coats are desired in addition to the priming coat the first and second additional coats shall be as above specified, and the third or finishing coat shall consist of an approved flowing varnish to which shall be added only enough of the enamel used in the preceding coats to give the varnish a distinct tint.

If a rubbed finish is desired each enamel coat shall be rubbed to a perfectly smooth surface by the use of whiting and linseed oil; but where two or more coats of enamel are applied over the priming coat, all excepting the last coat may be rubbed with rotten stone or powdered pumice and water, in which case each coat must in addition be rubbed with curled hair. The finishing coat shall be rubbed to a smooth finish with curled hair, and if a gloss finish is required shall be finished by rubbing with chamois skin.

Enamel finish on woodwork.—The same specifications as for work on plaster shall apply, with the exception of the priming coat, which shall be the same enamel paint or varnish that is used for the succeeding coat, excepting that it shall be within the discretion of the painter, if he deems it advisable, to increase the fluidity of the priming coat by the addition of pure linseed oil, pure gum turpentine, or both.

Mr. DEWAR. In what portion of this specification, where he gives the consumer or the master painter advice as to how he should go about trying out the intent of these specifications. It says [reading]:

The oxide used shall contain no free sulphur, sulphate, or acid, and shall contain not less than 60 per cent of pure unhydrated ferric oxide, without admixture of any compound of calcium, barium, aluminium, or magnesium. The oil contained shall be pure raw linseed oil.

Now, how in the world is the consumer, the master painter who undertakes to carry out this specification, to know that he is getting pure oxide of iron if the package does not contain the analysis of its contents?

Mr. HECKEL. Will you read the note? May I answer that?

The CHAIRMAN. Certainly; I understand it is a question addressed to you.

Mr. HECKEL. This is the general paint specification for painting work on the properties of the New Jersey Zinc Co. These formulæ have been determined after very long tests as the best and most satisfactory requirement. They have not been sent out broadcast by any means, and were not intended especially for master painters. They were given to any master painter who is interested in them, and were sent to engineering architects who are interested in the subject of the preservation of steel structures. Paint such as that will never probably appear in commerce. It involves what is known as the inhibitive principle and is merely a discovery on the part of the New Jersey Zinc Co. That zinc is a preventer of corrosion and the zinc is introduced with the cheapest of the ordinary earth colors, making a cheap priming for steel. That is all there is to that.

Mr. DEWAR. I have here a can purchased in the open market. I would ask the gentleman what are the contents of that can from the reading of the label (referring to Exhibit M-B).

Mr. HECKEL. From the reading of the label—may I ask you a question—would you be bound on reading the label?

Mr. DEWAR. I am asking you what you would construe the contents of that can to be by reading the label?

Mr. HECKEL. I would not construe it at all by reading the label.

Mr. DEWAR. What does the label say?

Mr. HECKEL. I would do exactly as you do; I would test the paint and see what the thinning value was.

Mr. DEWAR. I would ask what the label reads.

Mr. HECKEL. Gibbsboro black.

Mr. DEWAR. It says "Lampblack."

Mr. HECKEL. Gibbsboro lampblack.

Mr. DEWAR. Now I would ask you what that label says.

Mr. HECKEL. Refined lampblack. Lawrence colors, with the carbon given as 100 per cent, and I will say also that there is no guaranty that that is a high quality of lampblack from the analysis given there.

Mr. DEWAR. The analysis contained on the package says that "the contents of this package is 100 per cent carbon black." The package reads "Refined lampblack." That is the can you hold in your hand, Senator Reed.

(Exhibit M-B being the first package shown to witness and Exhibit M-C the second package shown to the witness.)

Mr. DEWAR. That package labeled Gibbsboro lampblack was purchased in the market. Twenty-five cents per pound was paid for it. The chemist analyzed it, and I offer as an exhibit the analysis of the contents of that package. One hundred per cent pure carbon was then selling at 25 cents a pound.

The analysis is as follows [reading]:

Article, Gibbsboro lampblack. Reported March 6, 1915. Made by John Lucas & Co. Carbon (lampblack), 55.46 per cent; barium sulfate (barytes), 44.54 per cent; total, 100 per cent.

Mr. HECKEL. May I make a remark with regard to that?

Senator CUMMINS. I think he is asking you something.

Mr. HECKEL. Under the law proposed forbidding misrepresentation and misbranding, and under the present Pennsylvania law, if your analysis be correct, that label could not be used on those goods.

Mr. DEWAR. That label shows an adulteration with barytes.

The CHAIRMAN. The label shows what?

Mr. DEWAR. The contents of the package referred to shows adulteration with barytes of over 44 per cent. Barytes costs less than 1 cent a pound. Twenty-five cents was paid for that pound in the open market, of which 44 per cent was barytes, costing the manufacturer less than 1 cent. Therefore, gentlemen, the necessity for the formula label.

The CHAIRMAN. What did you say about this other one, marked "Refined lampblack"?

Mr. DEWAR. The analysis on the package must speak for itself.

Mr. HECKEL. May I ask would you use that without testing the thinning value of it?

Mr. DEWAR. Probably there are not a hundred painters or consumers in this country who know how to test their colors.

Mr. HECKEL. Will you answer the question: Would you buy that simply on the formula, or any other colors?

Mr. DEWAR. Yes, sir; I would when the United States Government is behind it.

Mr. HECKEL. Will you buy it under the Pennsylvania law or the North Dakota law, any article simply on the formula?

Mr. DEWAR. We will get to the Pennsylvania law in a minute. There is something I want to ask you about it. Now, Mr. Heckel, is it not a fact, and is it not a very significant fact, that of the 10 leading manufacturers in the United States only one has a factory in a State demanding the label law?

Mr. HECKEL. And also largely in the States demanding the label.

Mr. DEWAR. Putting on the formula label as asked for by the Kenyon bill upon all the goods. Is that not a fact?

Mr. HECKEL. That, so far, is a fact.

The CHAIRMAN. I do not understand the question put in that form. Did I not understand you to ask the witness if it is not a fact that all of the paint manufacturers except 10—

Mr. DEWAR. No, sir; 10 of the leading manufacturers of this country put on the label as required by this bill upon all goods, and will continue to do so right along, notwithstanding the obstacles that the gentleman who preceded me has stated.

The CHAIRMAN. Have you that?

Mr. DEWAR. I have it here; yes, sir.

The list is as follows [reading]:

States having paint laws in force at the present time: North Dakota, South Dakota, Minnesota, Nebraska, Iowa, Ohio, Pennsylvania, Vermont, Massachusetts, and California.

Paint manufacturers who place the formula label at the present time on all of their paints, in conformity with the requirements of the Kenyon paint bill: John W. Masury & Son, Brooklyn, N. Y.; Harrison Bros. Co., Philadelphia, Pa.; W. W. Lawrence & Co., Pittsburgh, Pa.; Acme White Lead & Color Works, Detroit, Mich.; Heath & Milligan Manufacturing Co., Chicago, Ill.; Patton Paint Co., Milwaukee, Wis., and New Jersey; Campbell Glass & Paint Co., St. Louis, Mo.; Lincoln Paint & Color Co., Lincoln, Nebr.; National Lead Co., New York, N. Y.; Sherwin-Williams Co., Cleveland, Ohio.

Mr. HECKEL. That is the same as the Acme. That is only the Lincoln branch of the Acme.

Mr. DEWAR. It is the National Lead Co., New York; Sherwin-Williams Co., Cleveland, Ohio, and others. Gentlemen, those are the leaders of the paint manufacturers in this country, and notwithstanding the obstacles——

Mr. HECKEL. I take exception to that.

Mr. DEWAR. Notwithstanding the obstacles this gentleman presented they will continue to put on the formula.

Mr. HECKEL. The National Lead Co. does not put on the formula on its packages.

Mr. DEWAR. I am sorry I have not one of them with me. It shows 100 per cent carbonate lead—99 and a fraction.

Mr. HECKEL. They manufacture colors and paint also.

Mr. DEWAR. Now I am going to ask Mr. Heckel if the Pennsylvania law will protect the users of mixed paint?

Mr. HECKEL. Quite as much as the formula law and probably better, in my opinion.

Mr. DEWAR. In what respect does it protect? If a man, for instance, a paint manufacturer, calls his paint "John Brown's mixed paint," is it not possible for him to make that paint as vile as possible?

Mr. HECKEL. Undoubtedly.

Mr. DEWAR. Using 100 per cent barytes, or 100 per cent barytes and whiting?

Mr. HECKEL. No.

Mr. DEWAR. And as a vehicle have 39 per cent water, and the law of Pennsylvania would not touch him. Why? Because he claims nothing for its composition but everything for its virtue.

The CHAIRMAN. Are you asking questions now?

Mr. HECKEL. Mr. Dewar is making a speech, not asking questions.

Mr. DEWAR. I am asking a question.

Mr. HECKEL. I say that is entirely a special pleading of the case. As far as the question is involved, I have answered it already.

The CHAIRMAN. Let me ask you a question. Would it, or would it not be possible under the Pennsylvania law for a man to make what is termed mixed paint?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. And without putting any label whatever upon the receptacle and selling it as simply mixed paint?

Mr. HECKEL. I think he would find it would be hard to sell it without anything else.

The CHAIRMAN. If he could find purchasers?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. If he sold it in that way there would be nothing under the Pennsylvania law by which to punish him. If he used adulterated oil or turpentine or substituted for good pigment inferior material, there would be nothing in that law to touch him?

Mr. HECKEL. No more than if you made a bad pie and sold it as pie.

Mr. DEWAR. I am going to ask the gentleman if the analyses in these two bulletins, one of last year and the other of several years ago, showing paint with as high as 100 per cent inerts, and paint containing water as high as 39 per cent in lieu of linseed oil, are correct?

Mr. HECKEL. I never heard of paint containing 100 per cent of adulterant.

Mr. DEWAR. Would you doubt the author, the chemist?

Mr. HECKEL. If he said paint contained 100 per cent of adulteration I would, because that would not be adulteration.

Mr. DEWAR. One hundred per cent inerts, we will say.

Mr. HECKEL. What kind of paint would that be? What would be the object? You can not make paint out of pure barytes.

Mr. DEWAR. There is an analysis here that shows a number of them as mixed paint.

The CHAIRMAN. What are you referring to? Who made this analysis?

Mr. DEWAR. Prof. Ladd, Commissioner of North Dakota, who has made the paint problem a study.

Mr. HECKEL. You will not find 100 per cent adulteration in any of them, because there must be some coloring matter in them, and that is not adulteration.

Mr. DEWAR. There are two of them right here.

Mr. HECKEL. Please read the formula. You have referred to paint being sold with 100 per cent of adulteration.

Mr. DEWAR. No; I say inerts, 100 per cent. I will take the word "adulteration" back, because there is no standard of paint; there are some good, some bad, and some indifferent.

Mr. HECKEL. Will you let me know what that 100 per cent of inerts are?

Senator CUMMINS. Here is a table that is headed "Brand," showing 15 per cent and over of inert material.

Mr. HECKEL. That is fair. I think Mr. Dewar will say that 15 per cent is pretty good.

Senator CUMMINS. Then follows a list of paints beginning with "Cottage colors, Hammonds' Paint Works." That is 16.82 inerts. What that means I do not know. Then it closes with "Mephisto barn paint, 100 per cent inerts."

Mr. HECKEL. I think there is a mistake in that analysis. I would doubt that analysis if that is the case. If it contained 100 per cent inerts there would be no color, as far as I could see. I do not know of any inert material. If I did I would like to get a patent on it.

The CHAIRMAN. What do you mean by inert?

Mr. HECKEL. Inert matter is uncolored or white pigments without chemical activity in the presence of the liquids used.

Senator CUMMINS. Perhaps if I read from the beginning it will be understandable [reading]:

In the following table we have arranged a list of those paints containing more than 15 per cent of what is usually termed as "inert material." We have not included white lead, lead sulphate (sublimed lead), zinc oxide, color, or undetermined matter; all other ingredients in the pigment have been classed as inert material. We have not, however, mentioned those brands of paint which carry large quantities of benzine and water, and which, to a considerable extent, in cheapening paints may be said to take the place of the inert material in the pigment, so far as barytes and chalk are concerned.

We have therefore arranged in order of per cent all those brands of paints where the amount of inert material is in excess of 15 per cent.

Mr. HECKEL. Fifteen per cent, I think Mr. Dewar would say himself, is not excessive in a good many kinds of paint. But, on the other hand, without some further explanation, I doubt the paint containing 100 per cent of inert material and no other pigment. It is impossible

to make paint with no inert pigment that I know of, constituting 100 per cent of the pigment. However, that is a detail.

Mr. DEWAR. It is a fact that you can make paint out of whiting and out of barytes, which is largely used in mixed paint. I want to ask if it is not a fact that the great agricultural classes of this country use mixed paint and in going to the stores——

The CHAIRMAN. Let us consider one thing at a time. You ask if it is not a fact that they use mixed paint.

Mr. HECKEL. All paint materials are used in mixed paint. Mr. Dewar uses practically all classes.

The CHAIRMAN. He is asking you a question whether it is not a fact that the agricultural classes of the United States use large quantities of mixed paint?

Mr. HECKEL. Yes, sir; and you probably know that the largest railroads are very large consumers, and the Government is becoming more and more largely a consumer of mixed paint.

Mr. DEWAR. Is it not a fact that by section 10 of this bill, that requires the analysis label to be placed upon the package, if that will not take away protection from the consumer of mixed paint?

Mr. HECKEL. No.

Mr. DEWAR. By reason of the fact that when a manufacturer makes a mixed paint, if this is stricken from the bill, he will simply call it John Brown's or William Jones's paint, claiming nothing for the vehicle or any of the constituents, and thereby the consumer running the risk of buying barytes and whiting and water for oil.

Mr. HECKEL. I can answer your question now.

Senator CUMMINS. That is not a question.

Mr. HECKEL. As Mr. Dewar is not there to advise those people, they would not know by the formula any more than without it.

Mr. DEWAR. Water is there.

Mr. HECKEL. Sometimes water is very good in paints, as you know.

Senator CUMMINS. Is this not true, that if the formula is required even though the ordinary purchaser does not read it, the manufacturer will be much more likely to observe the requirements of the law?

Mr. HECKEL. I think, Senator, that the word "compound" where a definite name is used is actually more of a protection to the consumer than the formula, and as I said in the beginning of my remarks the formula is a false and misleading standard. If I had known this was going to develop in this way, I would have had a man down here to show you and demonstrate the truth of what I say. That can be done and is done.

Senator CUMMINS. The formula may not always lead a man to the truth, but it never can lead a man into error, can it?

Mr. HECKEL. I think that is the tendency. It has the tendency to make a man produce the formula in the cheapest way, excepting those that have their reputations to sustain. The safest thing is the reputation and ability of the man who makes the paint.

Senator CUMMINS. That inheres in all business. The question is whether something more is not required than the reputation of the manufacturer or the seller.

Mr. HECKEL. Yes, sir; forbidding misbranding.

Senator CUMMINS. And the argument that leads to that conclusion is an argument against all legislation on pure food or pure

drugs, or everything of that kind, if the manufacturer or producer is to be relied upon for the production of a good article.

Mr. HECKEL. There is a good deal of difference between a man's stomach and a man's house.

Senator CUMMINS. Yes; there is a difference.

Mr. HECKEL. And medicines and foods are on very distinct organized chemical standards. We know what we are about when we are producing medicine, or we think we do.

Senator CUMMINS. If you have any proof that the label, or the statements on the label of what the thing really is, and of what it is composed, will be likely to deceive those who use the product, I would like to hear it.

Mr. HECKEL. I thought I had explained that at least from my point of view—that a man can duplicate; you can make a good paint or a bad paint with the same formula and the formula will be the same on the package. Now, it costs less to make a bad paint than it does to make a good paint.

Senator CUMMINS. But there would be still left the protection of the name of the manufacturer.

Mr. HECKEL. The protection of the name of the manufacturer remains still. Why hamper industry, then?

Senator CUMMINS. Because that does not protect individually.

Mr. HECKEL. But the label does not protect individually.

The CHAIRMAN. Let me see if I get your idea, which you have not expressed very clearly, I think. Is it your idea that if the Government requires all paint manufacturers to put a label on the package, giving the contents, that that will lead people to buy on the label?

Mr. HECKEL. That is, if it has any effect.

The CHAIRMAN. And if a poor-paint manufacturer—I mean 'a man who manufactures inferior paint, because it is not properly mixed—would put on his can a label stating that "this is made out in conformity with the formula prescribed by the Government, and contains such and such ingredients," thereby the people will buy, believing they have something with a Government guaranty back of it; thus, a man making inferior paint will be able to sell his paint on the Government guaranty, or what will be taken by the public as a Government guaranty, while in fact not one, and he will gain an advantage in that way, and the public will buy, thinking they are getting good paint, when in fact they are getting poor paint.

Mr. HECKEL. It is done right now in label States.

The CHAIRMAN. That is your idea.

Mr. HECKEL. Yes, sir,

The CHAIRMAN. Whereas, on the other hand, you should simply require the man, when he prints anything, to print the truth?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. And then when a man buys a thing that does not contain an analysis, he knows he is taking all sorts of chances, and is more likely to rely on the reputation of the house making the paint than upon anything else?

Mr. HECKEL. Yes, sir.

The CHAIRMAN. But he is not very likely to get imposed on. That is your idea?

Mr. HECKEL. That is my idea to some extent. The other is that the larger manufacturers who sell in all States—they are called the

national distributors—have been required to place the formula on the can by some of the States. It is an advantage to them to some extent, and not a great inconvenience to every large manufacturer to do that—that is, the larger the business, the easier the cost and trouble, etc. But that is a hardship to the small manufacturer, a very great hardship, and very great expense, and the tendency of all this minute legislation is not to prevent dishonesty and fraud, prescribing what path he shall walk, and how he shall walk it. The tendency is always to eliminate the small man and create the trusts or combinations, or the understandings, as far as the Government regulations will allow it, and in the end, with these regulations the manufacturer will be between the devil and the deep sea, and I suppose the deep sea will get him.

Mr. GIBBS. May I put a statement in the record, Mr. Chairman?

The CHAIRMAN. Is this in the form of a question?

Mr. GIBBS. No, sir; it is not in the form of a question.

The CHAIRMAN. Have you anything further that you care to say, Mr. Heckel?

Mr. HECKEL. No, sir.

The CHAIRMAN. The committee will hear Mr. Gibbs.

STATEMENT OF H. R. GIBBS, GENERAL MANAGER T. H. NEVIN CO.; ALSO PRESIDENT OF THE PAINT MANUFACTURERS' ASSOCIATION.

The CHAIRMAN. You may state your name, business, and residence.

Mr. GIBBS. My name is H. R. Gibbs; I am general manager of the T. H. Nevin Co., Pittsburgh, Pa.

The CHAIRMAN. T. H. Nevin & Co. are paint manufacturers, are they?

Mr. GIBBS. Yes, sir; and we are one of the smaller manufacturers, and that is the reason I ask the privilege of speaking.

The Senator asked sometime ago how many times you had to change your formula, and inquired as to the cost of changing the formula. When the Ohio law went into effect, it was originally a label-formula bill. We started to get ready to label our materials—the small manufacturers. We have chemists under contract, but we do not have a laboratory in our factory. We prepare ready mixed paints only, which is a small part of the line, and the labels for the cans will just read "Mixed paint." Two lines of ready mixed paint cost us over \$150. Fortunately the label portion of that bill was withdrawn, so we did not have to apply the labels, but to-day I do not know one of the formula that were in effect at that time that are in effect now. We have not reduced the quality of the material; on the other hand, we have improved the quality of our material and it runs all down through the line.

Now, with regard to the small manufacturer which you speak of changing the labels, that is just one change; that is just on one or two lines of goods. Those were not on the face of the label. They were simply stickers and put on the can to conform to the Ohio law. In case we had that law in effect, it is a question in my mind whether we would have gone to the expense, because it would have meant several hundred dollars to us—and hundreds of dollars to us mean more than thousands of dollars mean to those national distributors.

A change in the formula will work a hardship to every small manufacturer—and by small manufacturers I mean manufacturers who will do from \$350,000 and down to \$25,000—it will work a hardship on them and cause an expense that will be an awful hardship and will tend to standardize their labels.

There is one other thing which I wish to mention—in fact there are two other things which I wish to state in answer to a question the Senator asked. One of the things with regard to the smaller manufacturer—and Mr. Heckel mentioned it just in passing—is that it gives the pirates a chance—and by pirates I mean, a man, for instance, who has one mill, perhaps, and one man besides himself, and he will go out and advertise “Pioneer paint,” which is our brand, and give you the same formula as the other paint and do it for 50 cents per gallon less, and they can not give you the same material to save their lives, because it is not put together right. They can give you the same chemical analysis. Speaking of chemical analysis of blamp black, I will say to Mr. Dewar, and he will say the same thing, that you can buy lamp-black for 8 cents a pound—I am talking about the old prices, not the new prices, because nobody knows what they are now.

You can buy lampblack for 8 cents a pound and for $2\frac{1}{2}$ cents a pound, and the chemical analysis is exactly the same, and you can put them in the can at 99.8 per cent—that is, what we put on the can, if we put anything on—99.8 pure carbon, and one is good lamp-black, such as I judge that can is, and the other is bad.

The CHAIRMAN. Why is that?

Mr. GIBBS. I am not familiar with the manufacture of lampblack, but my idea is that the lampblack is manufactured from oils which are burned, and that the lighter lampblacks go near the top of the kiln and the other lampblacks settle down at the bottom; is that correct?

Mr. HECKEL. It is a question of complex carbonization.

Mr. GIBBS. The Senator asked what benefit would arise to the manufacturer if this paragraph of section 10 was stricken out. I have always believed in full weight, net measure, no misleading brands, and no misleading advertising. I have always sought formula-label legislation. In the first place the benefit is this: We have been bothered in Pennsylvania—we will not be any more, I hope—with short measure. It was a very common thing to have a 7-pint gallon can. We have been bothered with turpentine coming into the State which was not pure and linseed oil coming into the State which was not pure, and the fact is that the consumer as well as the manufacturer are benefited. The manufacturer is greatly benefited by the law, such as we have in Pennsylvania, in my opinion.

I thank you very kindly for allowing me to say this much.

Mr. L. H. FEHSENFELD. Mr. Chairman, may I ask a question about these two cans of black? Is it not a fact, according to your experience as a manufacturer, that a lampblack or any other color which may be so-called adulterated may have greater strength than a can of so-called pure lampblack or pure something else?

Mr. GIBBS. That is rather a hard question to answer. It depends upon the amount of adulteration and the kind of adulterant that you use.

Mr. FEHSENFELD. And the strength of the colors?

Mr. GIBBS. Yes; the strength of the colors.

The CHAIRMAN. Is there any other gentleman who desires to be heard in opposition to this bill or who desires to suggest any changes in the bill?

We will hear Mr. Walker, if he is ready, make a statement.

STATEMENT OF MR. P. H. WALKER, BUREAU OF STANDARDS.

Mr. WALKER. May I make one suggestion? I am neither an opponent nor an advocate of the bill; but section 4 was apparently drawn under a misapprehension as to where this paint work is done. It prescribes that the examination shall be made in the Bureau of Chemistry of the Department of Agriculture. In July, 1914, all paint work that was done there was transferred to the Bureau of Standards of the Department of Commerce.

I state this simply to give the committee information where work of that kind is being done at the present time.

Mr. GIBBS. Gentlemen, just one more word in regard to the changing of formulæ at the present time—and, understand, I am speaking from the small manufacturers' point of view. I want to emphasize the small manufacturers' standpoint. At the present time, under the conditions that exist in the paint industry, as well as various other industries, it has been absolutely necessary for us to change some of the established formulæ and at times substitute material because we could not secure it. The Senator spoke with reference to the cost of the labels. It not only means delay, but in many instances we are putting in material that costs us much more than the original formula calls for.

The CHAIRMAN. Is there any other gentleman who desires to be heard?

Mr. Felton, we would like to hear you.

**STATEMENT OF J. S. FELTON, OF FELTON, LIBBY & CO.,
PHILADELPHIA, PA.**

The CHAIRMAN. Is your firm a firm of paint manufacturers?

Mr. FELTON. Yes, sir.

The CHAIRMAN. What is your connection with the business?

Mr. FELTON. I am president of the company.

The CHAIRMAN. Are you a practical paint man?

Mr. FELTON. Not from actual work in the factory, no, sir.

The CHAIRMAN. Are you familiar with the business from your experience in connection with it?

Mr. FELTON. Yes, sir. I simply wish to say we will indorse the passage of this bill with the suggestions made by Mr. Heckel; that is, the provision with regard to testing the linseed oil and turpentine to conform to the standards of the American Society for Testing Materials, and with the formula-labeling section, section 10, eliminated. We hope the bill will be passed for the reason that we think it will then afford ample protection to all concerned and will not work a hardship on the manufacturer. We are one of the small manufacturers referred to by Mr. Gibbs.

The CHAIRMAN. You say you are a small manufacturer. Will you tell us the amount of your annual business, approximately?

Mr. FELTON. Well, we do from \$300,000 to \$400,000 of business a year.

The CHAIRMAN. Do you sell generally all over the United States, or in a limited territory?

Mr. FELTON. We sell in the Eastern and Central States only.

The CHAIRMAN. Do you sell in any of those States where labels are required?

Mr. FELTON. We do not. At the time the Ohio law was passed requiring the formula label we did then have to change a great many of our labels. It was quite an expense to us. That was simply on the line of colors. If that had applied to all of the many lines of goods that we make it would have been an enormous expense, and, while a great burden to us, would not be of any practical benefit to the consumer.

The CHAIRMAN. We will hear Mr. Gregory at this point.

STATEMENT OF E. D. GREGORY, REPRESENTING THE FRASER PAINT CO. OF VIRGINIA AND DETROIT.

Mr. GREGORY. I wish merely to enter our complaint as a small manufacturing enterprise getting a foothold in the commercial world against the giants, and their prestige and their influence which is great enough as it is.

In our judgment a law requiring a formula label would practically force us out of business and force our business to the large concerns which are large enough to have printing establishments of their own. In a very few moments, they can send downstairs and have labels changed and modified and with little loss of time, whereas, the small manufacturer must dicker with the printer outside even if he wants only a thousand labels, and he has to buy those labels at considerable cost, entailing loss of time and loss of money and aggravation connected with it. He is not large enough to observe that, nor is he large enough to observe the chemical advice, the constant chemical advice, the necessity for close analysis of every article received. He judges it, as a rule, in a larger way, and in a more practical way. He tests the color and finds its strength which is the real point on which the decision should be made in the matter of color, and not exactly by its chemical ingredients.

Now, referring to these cans, I do not know the contents of either of them but suppose that one, according to its label, is absolutely pure lampblack and the other is said to contain 40 per cent of inert material. I have gone into this very carefully and I think I have studied carbons. The 40 per cent adulterated lampblack may be a much better purchase by over 100 per cent than the 100 per cent lampblack. The same oil made into lamp black can produce many different grades of different tinctorial strength, or different lasting qualities.

We have contracts for lampblack running from 3 cents a pound to 10 cents a pound, and some of the very higher blacks are worth 27 cents a pound. It is a question of arithmetic that does not puzzle anyone, to see whether the lampblack called "Gibbs Bros.' lampblack" assuming this as a possible case—is made of 10 per cent lampblack, and there is 60 per cent lampblack in it and is of more value than the 100 per cent lampblack that costs 3 cents a pound. In

both cases they are chemically pure. Consequently it is something beside chemical purity. It is a question of its tinctorial strength, and that it does in a practical way.

The small manufacturers of the country are forced to make their tests in a practical way, and we think that all one has to do to lose business is to furnish unworthy material once. We do not need any punishment. That is the way rumor spreads—that somebody has sold a bad quality of paint to some manufacturer. They will never outlive it. The formula label is not half such punishment as would be a notice given to the community that a certain manufacturer has sold bad paint. Consequently, his only safeguard is in furnishing worthy material. The small manufacturer is even more careful than the large manufacturer, because he has not the prestige to go on and must furnish worthy material at all times. He is a taxpayer and has to deal even more correctly with his customer than the large man. The president of a company may go out soliciting orders and thereby requires a first-hand acquaintance.

Now, the protection that gives the consumer the greatest that can be given, in my humble judgment, a close first-hand acquaintance between manufacturer and consumer. I do not believe that the formula label will give anything like the protection that may be secured from the small manufacturer's close connection with the people that he sells to.

The CHAIRMAN. May I interrupt you in your very interesting statement to ask you frankly if it is not a fact that there are lots of spurious paints put on the market that actually come in competition with good paints and which injure the market for the good paints?

Mr. GREGORY. That is so; yes, sir.

The CHAIRMAN. How can that be prevented? That is what I want to know.

Mr. GREGORY. I was asked by a department store very recently to mix some paint. According to our standard, it was bad paint. I declined to make it until the man in charge of the department said: "Do you know that if somebody does not make a paint of that grade, these people will not have any paint at all? We are going to sell this paint at \$1.25 a gallon, and your good paint we would have to sell at \$2.50 a gallon. They are buying it for their own use. They are going to put it on the house themselves. It will last two or three years. We can not give them a highly standardized paint, formula labeled, of the higher quality. They have to have paint and we must give them the cheaper paint that they can afford to buy." I saw something in the argument. There are a good many people in this country who have to buy a second-class paint, or even a third-class paint.

The CHAIRMAN. I am not speaking of the man who buys cheap paint, and who knows he is getting cheap paint. I am speaking about the fraud in the trade—let us put it in plain English.

Mr. GREGORY. Well, insist that nobody shall misbrand.

The CHAIRMAN. Do you think that goes far enough?

Mr. GREGORY. It goes as far as we can go at the present time. If that does not work, something else may be used. If it is not effective, the formula label may be adopted. Now, it will work a tremendous hardship, whereas by working up gradually to the point, where the

misbranding law proved ineffective, a less hardship will be worked, and it is a step in the right direction.

The CHAIRMAN. Does anybody else desire to say anything?

Senator BROUSSARD. I would like to ask a question. You said something about misbranding. Would you mind giving us some illustration of what you term misbranding? How would you apply term in the trade?

Mr. GREGORY. If a man undertakes to sell pure white lead and it is not pure white lead, he should be punished. I think a man should put his name on everything he sends out; I think that is the greatest protection the public can have.

I have heard something about inert materials in the little time I have been here. I am a believer in inert material in structural paint. I do not think any zinc is equal in certain cases to inert material.

I have just had a report from a committee on paints. I am not at liberty to go further than just to report that at the end of five and one-half years the paint that we have made contains 85 per cent of inert material which as a rule is higher than any other paints in this country. There are some others, some of them costing 3 to 4 cents more than this paint with inert material, and it rated 97 per cent perfect at the end of five and one-half years in a New York plant.

The CHAIRMAN. Was that paint used on the outside of the buildings?

Mr. GREGORY. Yes, sir; consequently, I do not think the statute on paint has gone far enough for the formula label to be feasible.

The CHAIRMAN. Have you anything else that you desire to suggest?

Mr. GREGORY. No, sir.

The CHAIRMAN. If there are any other gentlemen who desire to make statements the committee will be glad to hear them. I will say to you that we are forced by the circumstances to be as brief as possible, although we desire to give everybody a full opportunity to express his views. We might abbreviate it as we did the other day, when the other side was being heard. When one or two gentlemen testified we asked the others if they agreed with the testimony, and they said they did. If there is nothing further to be said on that side the committee will hear what is to be said in reply.

STATEMENT OF JOHN D. DEWAR—Resumed.

Mr. DEWAR. In closing, Mr. Chairman, I would say there is no prohibition on any manufacturer as to the class of paint he shall make, or be required to make, by the provisions of this bill. He can make his paint of any character that he chooses, the high-grade paint or the very, very low-grade paint, so long as he states the truth and puts the truth on the label on the package so that the consumer may not be deceived.

I want to state that if section 10 of this bill requiring the formula label is eliminated, the whole meat of the bill is gone. Why? Because it will not require the manufacturer to put the analysis label upon the package of his paint.

Senator BROUSSARD. What have you to say that as to two paints, as has been suggested here, containing the same ingredients and put together in the same manner, one may be good and the other bad?

Mr. DEWAR. Why, in the construction of a Steinway piano one man is given, or two men are given, the same lumber, the same wires, the same springs, and the same everything that enter into the construction of that piano, and when it is finished one is an abomination to the artistic ear while the other suits and pleases everybody. It is a matter of manipulation.

Senator BROUSSARD. I understand, but in that case the man who buys the piano can buy a good one or a bad one if his taste is good or bad. That does not meet the question I asked you. How would you prevent, as a result through the formula system, the bad paint becoming good and the good paint becoming bad, as the result of any legislation?

Mr. DEWAR. Do I understand you, Senator, to ask the question that if the same ingredients enter into both paints one ought to be bad and the other good?

Senator BROUSSARD. I say what have you to say to the testimony that that will be the result?

Mr. DEWAR. It is not possible.

Senator BROUSSARD. That is what I wanted to ascertain, and your reply was that in making a piano one might be good and the other bad.

Mr. DEWAR. I had reference to the use of the same materials.

Senator BROUSSARD. I judge you concur in the statement that one might be good and the other bad though the ingredients were the same.

Mr. DEWAR. No, sir.

Senator BROUSSARD. You say now that if the same ingredients are put in the paint the result of the paint when mixed would bring the same classification of paint in all cases?

Mr. DEWAR. Yes, sir; if applied by the same man and under the same conditions.

Senator BROUSSARD. I know; but you do not want here to have all packages branded to be made by the same man? Of course, there are different manufacturers.

Mr. DEWAR. I mean in the application of the same conditions.

The CHAIRMAN. If you will pardon me, Senator, you mean if there are two classes of paint in two cans, both of them containing the same ingredients, notwithstanding the way they have been mixed, as long as they contain the same ingredients a good painter will get the same result from both of them.

Senator BROUSSARD. That is what I have been trying to get at.

Mr. DEWAR. No, sir; he would not.

The CHAIRMAN. Why would he not?

Mr. DEWAR. Because of the conditions that enter into it—in the application of that paint. There are conditions that enter into the application of paint as to its wearing qualities.

Senator BROUSSARD. Then we come to the point I was aiming at a while ago. If A and B are manufacturing paint and each uses the same ingredients but have a different way of mixing the ingredients, the formula being the same in both cases, where is the consumer protected by putting the formula on the label if A's result is bad and B's result is good?

Mr. HECKLE. If you will allow me, that is a repetition of my answer, is it not?

Senator BROUSSARD. Yes.

Mr. HECKEL. My statement was that materials showing the same chemical composition and warning on the label, the same formula to be printed, in other words, showing by analysis the same composition, one may produce bad and the other good paint. I did not say the same original material.

Senator BROUSSARD. I misunderstood you.

Mr. HECKEL. The same materials and the same chemical composition, you understand, may produce one a good and the other a bad paint.

Senator BROUSSARD. I want to know where the protection is going to be to the consumer through the label if by using similar labels different results are accomplished.

Mr. DEWAR. I do not know; if all things be equal and one turn out bad and the other good it must be by reason of the foundation upon which you apply the paint or the climatic condition—during foggy weather or wet weather.

The CHAIRMAN. But you must assume the same condition clear through.

Mr. DEWAR. I could not say that there would be any difference.

The CHAIRMAN. In other words, do you think if a man took 50 per cent of white lead and 50 per cent of a certain coloring matter, or certain other materials, and took oil that was analyzed in a certain way, and turpentine in a certain way and he mixed that up and made paint, and another man took the same materials and mixed them up and made paint—

Mr. DEWAR. In identically the same way?

The CHAIRMAN. Not in identically the same way of mixing, but with the same identical ingredients, do you think the result would be the same and they would be equally good paint?

Mr. DEWAR. No, sir; because in the manufacture or the combining of those and the working of them together there may be a great difference.

The CHAIRMAN. Now that can not be provided against by any label.

Senator BROUSSARD. Where does the label protect?

Mr. DEWAR. The label would not protect you. It is only "the proof of the pudding."

The CHAIRMAN. Is not this true just the same, that if you put into the paints pure materials, one of them being mixed well and the other being mixed badly, so that one turns out a good paint and the other an inferior paint, that the inferior paint is still better than it would have been if it had not had these pure materials put into it?

Mr. DEWAR. I do not just grasp the question.

The CHAIRMAN. You say that the way the various materials entering into a completed paint are mixed, does affect the value of the paint. Accordingly it follows that a badly mixed paint would not give as good a result as a well-mixed paint.

Mr. DEWAR. That is true.

The CHAIRMAN. But is not that badly mixed paint still better because it has been made of the good materials?

Mr. DEWAR. It certainly is, sir.

Mr. HECKEL. Every manufacturer will disagree with that.

The CHAIRMAN. Mr. Fehsenfeld, we will hear you.

STATEMENT OF MR. L. H. FEHSENFELD, OF H. B. DAVIS & CO., BALTIMORE, MD.

Mr. FEHSENFELD. We do quite a large business with the Government. Some few years ago we shipped to the New York Navy Yard two carloads of the New Jersey company's XX zinc, ground in fine linseed oil. It was analyzed as strictly pure but by reason of some carelessness or condition of the mill or condition of the zinc, that shipment was condemned by the Government and yet it was analyzed by the New Jersey Zinc Co. as strictly pure zinc, and by the Government as strictly pure, and by three or four other chemists, and likewise the oil was analyzed. There was a condition that we could not understand.

The CHAIRMAN. How did they discover it, by using the paint?

Mr. FEHSENFELD. They discovered it by the use of the paint. Mr. Heckel will probably remember that.

Mr. HECKEL. Yes, I remember it perfectly, and it is a very apt illustration of paints.

Mr. FEHSENFELD. I suppose there were 15 chemists who passed on that shipment, and every one said it was pure.

The Government finally accepted it, and yet the shipment was not perfect by a good deal.

The CHAIRMAN. But the Government took it?

Mr. FEHSENFELD. The Government saw that we were absolutely innocent in the matter, and we made a concession, and they took it. In every way, shape, and form it was all right, but the appearance was very much against it and the working properties were very much against it.

The CHAIRMAN. If there is nothing else that you gentlemen care to state, we have with us a gentleman from the department, Mr. Walker, who will be heard.

STATEMENT OF MR. P. H. WALKER, BUREAU OF STANDARDS— Resumed.

The CHAIRMAN. Mr. Walker, what have you to say to us with reference to this label proposition; what is your opinion of it?

Mr. WALKER. With reference to the formula label, you mean?

The CHAIRMAN. Yes.

Mr. WALKER. My opinion is that practically all of the protection that can be given by legislation of this kind would be given by a law prohibiting misrepresentation. I rather agree with the statements that have been made by Mr. Heckel and the other gentlemen here, that the actual formula label may give a fictitious guarantee to inferior articles, especially in the case of colors, and that any protection that the consumer would get would be practically accomplished by not allowing the men to lie about their goods. There are of course cases where all parties demand formulas, and misrepresentation in a given formula would be just as much contrary to the law, if no formula was specifically prescribed, as if the formula clause was left in.

The CHAIRMAN. What do you think about the proposition that has been advanced here, that if there is to be a formula it should not be written in this bill but that the Bureau of Standards should be authorized to prescribe the formula?

Mr. WALKER. You mean the specification as to what constitutes pure linseed oil—boiled and raw linseed oil, turpentine, etc.?

The CHAIRMAN. Yes.

Mr. WALKER. I think that some clause in legislation of this kind that allows the setting of a standard based upon quality upon any particular time—that is, setting the standard of what pure oil is, for example, by a competent authority—is perhaps better than specific limits given at this time. As an illustration, I may say that the specification that was drawn up by the American Society for Testing Materials, which Mr. Heckel has referred to, was only issued after many years of work by a large number of men, and in doing that work exceedingly carefully authenticated samples of linseed oil were collected and examined in a large number of laboratories. We first issued a specification based upon the examination of those oils that prescribed, I think, an iodine number of not less than 178 and not more than 190. That appeared to be perfectly reasonable with the information that was before that committee. We kept on, however, examining other authenticated samples from succeeding crops of oil and we found, rather to the astonishment of most of the chemists, that we could get some oils with an iodine number above 190.

Senator BROUSSARD. What do you mean by an iodine number above 190? I was not here at the beginning of this hearing.

Mr. WALKER. The iodine number is a chemical test that we apply to oils that identifies the character of the oil. Linseed oil is characterized by an exceedingly high iodine number. It is determined by a certain specified method of test, and we use it as an identification of different kinds of oil.

The CHAIRMAN. Senator, I will say for your information, that it was explained here, as nearly as I can reproduce the explanation, that one of the valuable qualities of linseed oil was its absorption of oxygen in the air; in other words, its rapidly drying qualities, and that in order to ascertain that quality they employed iodine, and the amount of iodine that it will absorb determines its properties as an atmospheric absorbent. Have I stated that with reasonable correctness?

Mr. WALKER. Yes, sir. I am not so sure that the iodine number is a measure of its given absorption; I think that is, perhaps, questionable, but the main point is that the iodine number is an additional means of identification, just as we identify any substance by its color, its odor, and its weight. We want to get other things that we can not detect with the eye and nose to be able to say truthfully that this material is as represented. Now, the iodine number is one of those properties. It answers a certain test in the laboratory—that is practically what it is. It answers to that test. It is a technical expression.

Now, to go back to this specification that I spoke of, it was only after we had issued it first with this maximum number of 190 for the iodine that we found that undoubtedly pure linseed oils were being produced from pure seed grown in North America which had an iodine number above 190. So that the society committee recommended that we change that specification. They are also working on other tests for linseed oil which, when they become developed, may be of far more importance than any of the tests which we know of at the present time, so that if we should find next year, or five

years from now, that a certain other test is of far more importance than any that we know of at present, any authority that was obligated to enforce any such law would incorporate that test as part of the specification. That could be done under the scientific evidence of the accuracy of the test without appealing to Congress; otherwise we might be working for years under an obsolete specification.

That is to my mind the only argument for not putting directly in the bill the specification respecting oil. It is simply that we have not said the last word about it as yet.

The CHAIRMAN. I thoroughly appreciate your statement, I know that there are certain tests—

Mr. WALKER. If you will pardon me—to illustrate it in a somewhat different way, had such legislation been proposed 20 years ago the iodine number would not have been put in; they did not know it.

The CHAIRMAN. There are certain tests which I know of, for instance, strychnine. There are tests that tell you that an article may have strychnine in it, because strychnine invariably gives that test, but there are many other articles that give the same test. But if you get a negation in a test you know there is no strychnine. It is an eliminative process. Then there are tests that only a very few articles will give, and then there are tests that every one of these other articles, or chemical products, will respond to, and strychnine will not. Then there is one that strychnine will respond to, and nothing else. So I take it, applying what I have said as being what you mean, that you may find something hereafter that will be an absolute test, or a greatly improved test?

Mr. WALKER. Yes, sir.

Mr. DEWAR. I would like to ask a few questions.

The CHAIRMAN. You may ask questions but do not make a speech.

Mr. DEWAR. The passage of this oil bill will eliminate the manufacturer who to-day sells petroleum in lieu of linseed oil value, will it not?

Mr. WALKER. Yes, sir.

Mr. DEWAR. If a formula label law was enforced when you made the purchase in Washington and Baltimore of leads, and found the package marked "white lead" containing but 2 per cent and white lead ground in pure linseed oil that contained 1 per cent, and another package no white lead ground in pure linseed oil that contained 9 per cent, and white lead ground in pure linseed oil with no lead, and pure white lead warranted superior to any on the market, made of the best possible material and containing no lead, etc., down the line.

The CHAIRMAN. You mean to say would it have been possible for this paint to have been put on the market without violating the law?

Mr. DEWAR. Yes, sir.

The CHAIRMAN. Manifestly that does not need an answer. Manifestly if the label had been put on showing pure lead there would have been a violation of law. But now let me ask you this question: If you had a law simply saying that whenever there is a brand it should be a true brand, these men could have been convicted under that law, could they not, because they had misbranded; they had told a positive falsehood.

Mr. DEWAR. Yes, that is true, but when that law you speak of is applied to pure paint or to mixed paint it has no application whatever.

The CHAIRMAN. Certainly not, because then you buy an unknown quality—a pig of uncertain pedigree in a poke.

Mr. DEWAR. Swapping jackknives sight unseen.

The CHAIRMAN. If that is all that you gentlemen care to say the committee will now adjourn. We will take the bill under consideration.

I desire to place in the record a few communications bearing upon the subject under discussion.

(The communications referred to are here printed, as follows:)

WASHINGTON, D. C., April 12, 1916.

Hon. Senator REED of Missouri:

The report of Mr. G. B. Heckel, of Philadelphia, representing the Manufacturers' Association opposition to the Kenyon bill, to compel the manufacturers to change all the labels on their paint and state in their labels the ingredients contained. This law is certainly needed. This so-called association, I think, is a trust that operates very similar to the Standard Oil Co. in controlling the market and setting the prices, etc. They are worse, in that they impose on the public inferior goods, adulterations, and substitutes, etc. The market is flooded with this kind of stuff. It is very difficult to get any paint or colors that is not doped or that will stand unfaded any length of time. I don't think there is one paint dealer in Washington who has a pound of real chrome green on hand—that is, chromated lead—nor can I find any real rose pink made of alizarin. The yellows are also the worst that can safely be put up. The many kinds of coal-tar products are very unstable, being used as a dye to color cheaply thousands of tons of clay and barites; also whitening and gypsum or plaster of Paris, etc.

These materials are very cheap and a few cents worth of dye colors a ton of it. The color dye is not chemically combined with this material, sometimes only very loosely fixed so that a little sunshine on it will quickly fade it out and the rain will wash it out. This kind of stuff is imposed on the public and the majority of the so-called painters.

These manufacturers are robbing the people and taking advantage of using technical names that they know people generally are not familiar with. In filling a paint can with a lump of clay, their chemist has marked it oxide of alumina, say 30 per cent silicate, 10 per cent magnesium, and some other things that happen to be in the clay, as dirt, etc. This sounds quite good to the ignorant. Like patent-medicine quack, it goes. I think this manufacturers' business in this fair country is scandalous, and certainly needs laws to stop it. There is no covering qualities of any clay or barites, silicate, or the calcium carbonate nor sulphate of calcium. This stuff is used in making fake goods, with a low per cent of white lead and zinc. It is given fancy names, like Master Painters' Stock White, R. R. White, U. S. N. Dock Paint, etc. Hoping this bill (the Kenyon bill) will become law and stop this nefarious business,

I am, yours, most respectfully,

O. OLSON.

PAINT MANUFACTURERS' ASSOCIATION OF THE UNITED STATES,
Philadelphia, April 12, 1916.

Hon. JAMES A. REED,

Committee on Manufactures, United States Senate, Washington, D. C.

DEAR SIR: In accordance with my promise at the hearing yesterday, I take pleasure in sending you herewith copy of the last annual report of committee D-1, American Society for Testing Materials. On pages 57-59, inclusive, thereof you will find the specifications for raw linseed oil from North American seed; on pages 60-62, inclusive, the specifications for boiled linseed; and on pages 112-114, inclusive, the specifications for turpentine, of which I handed a typewritten copy to the reporter at the hearing.

I also inclose lists of the membership of the Paint Manufacturers' Association of the United States and of the National Varnish Manufacturers' Association. These lists are included in booklets containing also the by-laws and other information regarding the associations.

My speaking took so much longer than I expected that I overlooked two or three minor points in the bill under consideration (S. 1289), to which I had intended to call attention. I therefore beg to supplement my statement as follows:

Page 3, lines 17-20, inclusive, the paragraph beginning, "Provided that no linseed oil," etc., should be stricken out; that the formula-label provision in section 10, page 8, is stricken out, as requested by me. Page 8, the last sentence of section 9 appears

to me somewhat ambiguous. In lines 11-12, where the words "such terms shall be used as the case may be" apparently refer to the terms "basic carbonate" and "basic sulphate." I think you will agree with me that this provision is retained. The language should be made a little clearer, though it is my belief that the language of the Pennsylvania law covering these items will probably be more acceptable and satisfactory to the industries concerned. I quote the wording of that bill as follows:

"The term paint, * * * white lead (basic carbonate or basic sulphate), dry or in any kind of oil," etc. The contention of the manufacturers of the basic carbonate is that their product has been known for centuries simply as white lead, and that it is not just to require them to change all their brands by the addition of a limiting description, and thus raise a doubt in the minds of consumers as to the identity of the product.

Page 9, section 12: If the formula requirement is stricken out, then the concluding words (lines 12, 13, 14) beginning "or if the package fails to bear statement," should also be stricken out.

I am strongly of the opinion that the standard specifications of the American Society for Testing Materials, which have already been accepted in certain State laws, might with perfect propriety be recognized in the Federal law, being prescribed therein, perhaps, as an alternative to such specifications as might be issued by the Bureau of Standards.

As a matter of fact, the technologists of the Bureau of Standards are working constantly with the several technical committees of the American Society for Testing Materials in the formulation and revision of these standard specifications.

Very respectfully, yours,

G. B. HECKEL, *Secretary.*

No. 297.

(Pennsylvania act.)

AN ACT To prevent deception in the sale of paint, putty, turpentine, or any substitutes therefor, and providing penalties for the violation thereof.

SECTION 1. Be it enacted, &c., That no person, firm, or corporation shall knowingly sell or expose for sale within this Commonwealth any paint, putty, turpentine, or any substitute therefor marked in any manner so as to tend to deceive the purchaser as to its nature or composition, or which is not labeled as hereinafter provided.

SEC. 2. The term "paint" as used in this act shall include oxide of zinc, red lead and white lead (basic carbonate or basic sulphate), dry or in any kind of oil, or any compound intended for the same use, colors ground in oil, paste, or semipaste paint, and liquid or mixed paint ready for use.

SEC. 3. The label required by this act shall clearly and distinctly state the name and residence of manufacturer of the paint or of the distributor thereof or of the party for whom the same is manufactured. Such label shall be printed in plain legible type, and, so far as possible, common English words shall be used instead of technical terms.

SEC. 4. The label on all liquid or mixed paint shall show the net measure of the contents of the container, and on all paste and semipaste paint sold by weight the net weight of the contents of the package, or, if sold by measure, the net measure of such contents.

SEC. 5. The provisions of this act shall not apply to any articles hereinbefore described which are in this State in the hands of the jobbers and dealers at the time this act takes effect.

SEC. 6. The having in possession by any person, firm, or corporation dealing therein of any of the articles hereinbefore described and improperly marked or not correctly labeled as provided in this act, shall be considered prima facie evidence that the same are kept by such person, firm, or corporation in violation of the provisions of this act.

SEC. 7. For the purposes of this act an article shall be deemed to be improperly labeled or misbranded: (1) If it be an imitation of or offered for sale under the name of another article. (2) If the contents of the package as originally put up shall have been removed in whole or in part and other contents shall have been placed in such package. (3) If the package containing it or its label shall bear any statement, design, or device regarding the ingredients or the substances contained therein which statement, design, or device shall be false or misleading in any particular.

SEC. 8. The secretary of agriculture of the Commonwealth is hereby charged with the enforcement of the provisions of this act.

SEC. 9. The secretary of agriculture and his assistants, experts, chemists, and agents shall have access to all places of business, stores, and buildings used for the sale of paint, putty, turpentine, or any substitute therefor, and shall have power and authority to open any package, can, jar, tub, or other receptacle containing articles subject to the provisions of this act which may there be sold or kept for sale.

SEC. 10. Any violator of any of the provisions of this act or any person knowingly assisting or taking part in the violation of any of said provisions shall be guilty of a misdemeanor, and upon conviction thereof shall be punished for each offense by a fine of not less than twenty-five dollars nor more than one hundred dollars.

SEC. 11. This act shall take effect and be in force from and after the first day of December, anno Domini one thousand nine hundred and fifteen.

Approved, the 1st day of June, A. D. 1915.

MARTIN G. BRUMBAUGH.

The foregoing is a true and correct copy of the act of the General Assembly No. 297.

CYRUS E. WOODS,
Secretary of the Commonwealth.

WASHINGTON, D. C., April 12, 1916.

HON. JAMES A. REED,
Chairman Senate Committee on Manufactures.

HONORABLE SIR: At the hearing before the Senate Subcommittee on Manufactures on Senate bill 1289, Kenyon paint bill, held on Tuesday, April 11, the undersigned was very anxious to make the inclosed statement, but as the chairman had been so generous in time to both sides the undersigned did not desire to prolong the hearing, so kept quiet.

Senator Broussard seemed much impressed with Mr. Heckel's two cans of paint, one good and the other bad, that I earnestly request that the inclosed statement be made part of the hearing.

Expressing my sincere thanks for your very courteous consideration, I beg to remain,
Very respectfully,

CHAS. MACNICHOL.

HEARING ON THE KENYON BILL, SENATE BILL NO. 1289.

It is not commercially possible to put on the market two cans of paint of the same composition that will analyze the same and one be a poor paint and the other a good paint. It is impossible for a manufacturer to make and market such a paint.

The labeling clause in this bill is intended to protect the buyers of paint and to give the buyer some information as to the contents of the container when purchasing paint in the open market.

The labeling clause was not intended to exploit the freak manipulations of the paint chemist, but to protect the paint consumer from fraud in buying commercial paint in the open market.

Very respectfully,

CHAS. MACNICHOL.

MASTER PAINTERS' AND DECORATORS'
ASSOCIATION OF KANSAS CITY,
Kansas City, Mo., March 15, 1916.

HON. JAMES A. REED,
*United States Senator, Senate Office Building,
Washington, D. C.*

DEAR SIR: All of the members of this association are very much interested in what is known as the Kenyon paint, oil, and turpentine bill, also known as Senate bill No. 1289.

This bill requires the formula label on all white lead, paints, and colors. It also creates a standard for raw linseed oil, boiled linseed oil, and turpentine, with full weight and measure. This law will insure a true knowledge of what you are purchasing. It will eliminate the sale of barytes, etc., labeled as "white lead" and very frequently "pure white lead," also marble dust, etc., colored with aniline dye and labeled "pure Italian sienna," also yellow clay from being labeled "pure French ocher," and all sold at the pure-article prices. It will eliminate the 10 to 30 per cent

water found in paints, also the 10 to 40 per cent of mineral oil, etc., found in the barrel labeled "pure turpentine."

We are of the opinion that the people of this country, as well as those actively engaged in the painting industry, are entitled to the same protection as is now being given the public in connection with food products, tobacco, etc., which enter into interstate commerce.

The frauds which have been perpetrated on the public because of fraudulently labeled products which are used in the paint industry have been numerous, and we know that much good will be accomplished by the enactment of the Kenyon bill.

As constituents of your State, we respectfully request your interest and effort in the passage of this proposed law.

Respectfully,

V. A. DOWNING, *Secretary.*

DETROIT, MICH., *March 13, 1916.*

HON. W. S. KENYON,
Senate Office Building, Washington, D. C.

HONORABLE SIR: Before the present National Congress we have what is known as the Kenyon paint, oil, and turpentine bill, also known as Senate bill No. 1239, introduced in the Senate by Senator W. S. Kenyon, of Iowa, and has been referred to the Committee on Interstate Commerce.

This bill requires the formula label on all white lead, paints, and colors; it also creates a standard for raw linseed oil, boiled linseed oil, turpentine, and all other paint materials with full weight and measure. This law will insure you a true knowledge of what you are purchasing.

If a package is not properly labeled with a formula you may purchase 100-pound package of what is labeled pure white lead, and you can not determine what the ingredients are without analysis. I will give you one example.

A package of what was supposed to be pure white lead was shipped to the North Dakota Agricultural College, Governmental Experiment Station, care of Prof. E. F. Ladd, for analysis; the label on the package was "Anti Trust Pure White Lead" and linseed oil.

Analysis of pigment in package.

	Per cent.
White lead.....	13. 08
Lead sulfate.....	.30
Zinc oxide.....	35. 62
Zinc sulfide.....	1. 10
Barium sulfate.....	40. 96
Silica and silicates.....	7. 72
Undetermined matter.....	1. 14
	100. 00

What one would infer when he reads the term "pure white lead"—would he expect to purchase barytes, silica, and other ingredients as part of the pure white lead, and when, as a part of the name, they use the term "antitrust," one would infer that is a combination producing a pure lead in opposition to some lead trust. Unfortunately the analysis does not bear out this conclusion, but shows the kind of deception that is being practiced in labeling and selling of this product.

I have been in the painting and decorating business for over 50 years, and have seen hundreds of fine dwellings ruined by the use of worthless paint materials. We have in many States a pure food law, and also, I am informed, a Federal pure food law, passed by Congress. Why can we not have a pure paint law?

Our legislative committee, appointed some nine years ago, to formulate a paint bill and have it enacted into Federal law, are composed of five of the leading painters and decorators in the country, and they have given much of their time to this work without compensation, therefore I respectfully request that you assist our committee in the early passage of this bill.

Yours, sincerely,

JAMES ROACH, Sr.,
President the James Roach Co.

[An editorial in American Paint and Oil Dealer, St. Louis, February, 1912.]

SOME REASONS AGAINST PAINT FORMULA LAWS—ABSURD TO REQUIRE FORMULA ON PAINT CANS AND NOT ON FOODS, DRUGS, SOAPS, AND ALL PROPRIETARIES AND COMPOUNDS—WHY THE LAWMAKERS, THE PUBLIC, THE PRESS, THE PAINT TRADE, AND EVERY BUSINESS MAN SHOULD OPPOSE SUCH LAWS, WHILE URGING STRICT LAWS AGAINST FALSE LABELS, WEIGHTS, AND MEASURES.

Bills to regulate the sale of paint, in various ways, have been introduced in the States of Maine, Texas, and Washington, and with 42 legislatures meeting this year such bills may be expected in other States, and perhaps in the National Congress.

Some of our readers in these three States and in some others where there are rumors of such legislation have written us on this subject. Some simply request information and suggestions, some are opposed to any special paint laws, some favor laws against misbranding or misrepresentation of any sort, and others want the complete formula on the package—most of these referring to the national food and drugs law and demanding "similar laws on paint," though the food and drug law does not require the formula on anything, a fact that apparently the public and many editors and legislators will never learn.

We can see no special need for any paint legislation to-day (though we can see no special objection to a law against mislabeling), but before the campaign begun by the trade itself some years ago to reform trade customs as to grading and branding and gross weights, etc., there was a real basis for some demand for legislation, and it fairly may be said that the drastic formula laws now existing in several States (all hastily enacted, without any committee hearing in which the opponents of such laws were heard) and the fear that such unjust laws might be enacted throughout all the States, gave impetus to the house cleaning that the trade has conducted so vigorously and thoroughly. This "clean-up" movement did not stop the attempts to secure formula laws, however, for about 60 such bills have been introduced in various States in recent years; but the paint trade, with clean skirts and clear conscience after its achievement in good housekeeping, has insisted upon public committee hearings on these bills, in which the reasons against formula legislation could be presented and discussed, and no such bill has become a law after such hearing, which speaks well for the fair-minded judgment of informed legislators and for the soundness of the objections to such laws.

In the belief that formula legislation should be opposed by the public, the press and the whole business community as it is by the paint trade, and all the drug and other proprietary manufacturing and selling interests, and that it would be opposed by all if its sources and effects were understood, we present some of these reasons in the hope that they will be considered carefully by all our readers, and that these reasons may prompt the earnest and intelligent protests of our readers, through their local editors and especially their representatives in the legislatures, wherever these formula bills may be introduced, though we also urge the advocacy and the enactment of strict laws against false labels, weights, and measures—not because of any crying need for them in the paint trade to-day, but as evidence of the trade's good faith and its willingness to accept even the most rigid regulation to which the food and drug trades have been subjected under the police powers to protect health and life.

The whole American paint trade, by the repeated formal resolutions of all its various organizations of manufacturers and robbers and dealers, is opposed to legislation that requires the formula on the package, and chiefly for these reasons:

1. FORMULA LAWS ARE WRONG IN PRINCIPLE.

Laws that confiscate private property by requiring the complete formula on the package are wrong in principle and establish a precedent that is already being utilized to urge the enactment of similar laws against all proprietary articles, though this has never yet been done, even under the national food and drugs act.

2. FORMULA LAWS WRONG THE PEOPLE.

Such laws wrong the public by magnifying into fictitious importance the mere quantitative formula and by minimizing and discounting the real importance and the personal responsibility of the local dealer, the salesman, and the manufacturer, who, indeed, under such a law need only "sell by the formula." A food commissioner in one of the half dozen paint-formula law States reports a paint composed entirely of two materials utterly unknown in the reputable paint trade, which was thus "bought on the formula" on the package. Its purchaser (a dealer) said the

paint was worthless, but he and his customers had no legal recourse, as they would have had if they had bought on reputation or trade-mark and without the formula, as they buy Ivory soap or Worcester sauce or Cascarets, for if their judgment of such reputation proved at fault and the goods worthless or, in the common-law phrase, "unmerchantable," they would have ample legal remedy.

3. FORMULA LAWS PREVENT PROGRESS.

Such laws are unscientific, unprogressive, and un-American. They retard progress in the science of paint making, discouraging the improvement and development of formulas by reputable manufacturers while encouraging the law-evading schemes of obscure and irresponsible dopesters. Few paint formulas of the reputable paint manufacturers are the same as 20 years ago, or 10 years ago, or 5 years ago. No other industry has devoted such talent and means and effort to scientific research and development as has the paint trade in recent years through its scientific bureau, with its splendid laboratory facilities, its corps of disinterested technologists, and the eager, unselfish, and intelligent cooperation of the several hundred manufacturers who contribute the support for its work, the results of which work, at general variance with the ignorant and impossible standard prescribed by the original, the North Dakota, paint formula law, are welcomed and recognized and utilized throughout scientific and technical and practical circles. To establish a trade "on formula" instead of reputation, and its guaranty of satisfactory service, and later to change that formula is a serious thing. To change the labels and all the printed matter, with every improvement, is an expensive matter to a concern making several thousand products in the various lines and colors, as do most general paint makers.

4. FORMULA LAWS HURT SMALL MANUFACTURERS WORST.

Such laws especially injure the small manufacturer who is too good a citizen to evade or dally with the law or to compound with its indifferent or irregular enforcement, and whose trade in States requiring the formula label may be too small to justify the increased expense incident to the rigid chemical inspection of raw materials, and of labeling and shipping. A chemists' staff costing \$10,000 a year, besides the initial outlay for laboratory, means a much smaller additional cost per gallon on a half-million gallons than on 50,000 gallons—and that principle applies to much other "overhead" expense incident to accurate and complete formula labeling. Thus the effect of such laws, though felt by the largest manufacturers is to place an especially heavy burden upon the smaller ones, and has caused many of the oldest and most reputable concerns to withdraw from and lose their trade in such States, besides placing a special ban upon the establishment or development of home manufacturers in such States.

5. THEY LIMIT COMPETITION AND INCREASE COST AND PRICE.

Such laws limit honest competition by narrowing the dealer's, the painter's, and the public's buying market, and they add to the cost and the price of the goods. Reputable manufacturers are on record with statements that the mere formula labeling actually adds from 3 to 12 per cent to the cost per gallon. This cost may be quite small to some manufacturers, but that such necessary rigid technical inspection of incoming materials and the finished product, and supervision of clerical and shipping labor, reduced to money terms, costs something can not be doubted by any merchant who will contemplate the adoption of formula labeling throughout his own business, and especially if he is a druggist, upon every prescription or every medicinal or toilet article that he compounds himself.

6. FORMULA LAWS INJURE HONEST PUBLISHERS AND ADVERTISERS.

Such laws are a grievous injustice to the publishing and advertising interests and have been generally condemned by the press, and in specific resolutions by the Associated Advertising Clubs of America. Their effect is to confiscate all that honest, intelligent advertising creates, viz, reputation, good will, and demand. Compared to this the confiscation of the formula (which itself is property with as much legal standing as a cow or a town lot) is a mere incident. Of his best formula the paint manufacturer might truly paraphrase, "Who steals my formula steals trash compared to the value of my good will and trade-mark." And when the State lends its prestige and fiat to the apparently plausible fallacy that the formula is the standard of quality and it discloses formulas by legislative enactment, then the honest, enterprising,

advertising manufacturer has to face the fact that the results, the profits of his continued efforts to increase demand and reputation, must be divided among the brood of formula pirates already abroad, who have only to invoke the majesty of the State's fiat to convince the average consumer that the pirate product is not merely "just as good" but "just the same; see the formula on both cans; guaranteed by the State." The fallacy would be obvious if the formula were required on a loaf of bread—everybody eats bread every day. But the route is longer on paint, and many circumstances may intervene to prevent the consumer from concluding that his "same thing" paint turned out disastrously in a year or two because some things besides a set of measures and scales, some crude raw materials, and the formula on the reputable maker's paint can are essential in the making of good paint.

7. FORMULA LAWS ARE PROVEN FAILURES.

These laws are now demonstrated and costly farces, grinning upon the fair-minded and intelligent people of these States, and worse, for these laws are now demonstrated wrongs upon several thousand law-abiding local dealers, who have been subjected to the practical confiscation of hundreds of thousands of dollars' worth of actual values in local agencies of long standing (on brands now withdrawn from such States) and in stocks on hand upon which the ban of "back number" and of illegality was placed by these laws. Hundreds—yes, more than a thousand—of these dealers have written this journal in response to our inquiries. They report sacrifices of thousands of dollars in closing out reputable brands of now illegal or "back number" paint, and they reported approximately \$100,000 worth (a modest estimate, from the reports in hand¹) of such paint yet in stock, from two to four years after the laws went "into force." In most of these States the legal time limit for the disposal of all such paint not bearing this complete formula label has been extended several times, but to-day not a gallon can be sold legally or be exposed for sale or held in the possession of a dealer, even if "dumped together and sold for barn paint," which many dealers mistakenly suggest as the best method to realize on these goods. If these laws had been enforced from the first, doubtless they would have been declared unconstitutional ere now, though efforts made in good faith and by agreement to test the law have been quashed by the prosecution's dismissal of suits brought against those who openly violated the law in order to make such a test. In this connection it should be stated that in the result of the effort to test the constitutionality of the North Dakota law, it was not the law but the legislature that was "vindicated" in its right to enact any police legislation, "however unwise" or, inferentially, however unconstitutional. Inevitably if these laws should be actively enforced their constitutionality would be tested upon the actual merits of the questions involved, though it would be unfortunate for the property owners and the dealers in these States and for the whole paint trade to be subjected to further loss and trade demoralization while awaiting the outcome of the tedious processes of the courts. They should be repealed or the formula requirement should be eliminated now.

These are some of the reasons for opposing paint-formula laws, though the alert reader doubtless ere now has developed in his mind additional reasons, as moving and as moral as these, for of the frankest and most straightforward editorial pages it may oftentimes be said "yet the deepest truths are best read between the lines, and, for the most part refuse to be written."

The solution of the situation seems obvious, though it will require perhaps more active personal interest and effort among the dealers and all other branches of the trade than may be extended in every State where such laws are threatened, or where they may exist already. For though in Ohio the paint formula law was promptly repealed—or modified into the present strong law that effectively prohibits mislabeling—the general trade effort to correct such formula laws elsewhere was frustrated two years ago by local political exigencies, and that desire has suffered further discouragement in the fact that most dealers have "swallowed their losses, dumped their dead horses, and are trying to forget their paint troubles," as one writes. Hundreds of them "don't sell paint now."

But the formula bills recently introduced, or threatened—and we earnestly believe, all the existing formula laws should be corrected now, by eliminating the formula clauses and strengthening the proposed bills, or existing laws—so they are made effective in prohibiting the mislabeling of paints, oil, lead, turpentine, etc. If this is done, various food commissioners will waive their present request for increased

¹ The original letters will be submitted to the inspection of any committee of legislators considering this subject upon satisfactory assurances of good faith, viz, that no prosecution of these dealers shall be based thereon.—Editor.

appropriations and more inspectors and analysts with which to perform their sworn official duty to harass a reputable industry by enforcing laws more drastic against one proprietary product than are the national food and drug laws that were enacted to protect the public health. Property of immense value (these stocks of present or prospective illegal paint) will enjoy their rightful standing and value; the house-owner can buy on reputation or formula, or both, as before—for, like “nonsecret” remedies, there have always been open-formula paints; the manufacturers may go forward with their work of scientific research and proper promotion, secure in the honestly earned returns therefrom and without being penalized for each improvement; and the honest dealer may accept, and by reputable goods and enterprising methods may build up a profitable local agency without fear of formula pirates across the street or the abandonment of the field by the manufacturer.

That but few of the dealers and manufacturers still selling paints in these formula-law States are tempted to condone such laws (which the short-sighted might consider advantageous to them in reducing reputable competition) is creditable not merely to that esprit de corps which has become general among business men of every class—with the creed, “All for one and one for all.”

This practical unanimity is evidence that the business community, with the general public, is getting back to principles. And when a man does that, a man who is honest with himself and his mental processes, then comes the realization that no lasting good can result from any action, movement, law or policy that is based upon a wrong principle, however correct the motive; and that to compound with a wrong principle is to encourage error and precedent which, as inevitably as the law of compensation, must eventually involve and confuse its authors and sponsors and would-be beneficiaries.

“A wise man,” said Emerson, “will extend this lesson to all parts of life,” for, the sage continues:

“All things are moral. That soul which within us is a sentiment, outside of us is a law. All nature feels its fatal grasp. Cause and effect, seed and fruit, can not be severed, yet while thus the world will be whole, we seek to act partially, to sunder, to appropriate. But do thou leave as unlawful these winnings and deal with cause and effect. You think good days are preparing for you? Do not believe it. Nothing can bring you peace but the triumph of principles.”

RICHMOND, VA., *March 22, 1916.*

HON. FRANCIS G. NEWLANDS,
Senate Office Building, Washington, D. C.

MY DEAR SIR: There is a bill now before the Committee on Interstate Commerce known as “Kenyon paint, oil, and turpentine bill,” and also known as Senate bill No. 1289. This bill requires the formula label on all white lead, paints, and colors. It also creates a standard for raw linseed oil, boiled oil, and turpentine, with full weight and measure. This law will insure a true knowledge of what one may be purchasing, in eliminating the sale of pyrites, etc., labeled as “white lead,” and very frequently “pure white lead,” also marble dust, etc., colored with analine dye and labeled “pure Italian sienna,” also yellow clay from being labeled “pure French ocher,” and all sold at the pure-article rate of prices. It will eliminate the 10 to 30 per cent water found in paints, also the 10 to 40 per cent of mineral oil, etc., found in the barrel labeled “pure linseed oil,” and also the 20 to 62 per cent mineral spirits (benzine) found in our “pure turpentine.” The above statements have been corroborated by a committee of investigation.

I respectfully request that you will give this bill your earnest support and influence, as its passage means the correction of much imposition upon the public and fulfills a long-needed public necessity.

Thanking you in advance for any courtesies shown this matter, I am, with great respect,

Very truly, yours,

A. D. WHARTON.

ASSOCIATION OF MASTER PAINTERS AND DECORATORS,

Boston, Mass., March 17, 1916.

HON. FRANCIS G. NEWLANDS,

*Senate Office Building,,**Washington, D. C.*

MY DEAR SIR: There is before the Committee on Interstate Commerce a bill, Senate No. 1289, known as the "Kenyon paint, oil, and turpentine bill."

This bill in our belief is one of the most important that has been drawn to our attention, in so far as it directly affects you as a property owner and we as master painters.

Under existing conditions you order your painter to paint your house, you and he both supposing the material used is absolutely pure and of the highest grade. Now, supposing after a year or two the paint shows signs of disintegration, peeling, cracking, your first thought is of the poor work the painter performed and invariably you would call upon him to make things right at his expense, while the whole blame should be placed upon the manufacturer who sold the paint as absolutely pure, knowing all the time that it contained a large percentage of adulterate.

The passage of the bill would eliminate the sale of pyrites, etc., labeled as "White lead," and very frequently "Pure white lead," also marble dust, etc., colored with analine dye and labeled "Pure Italian sienna," also yellow clay from being labeled "Pure French ocher," and all sold at the pure article prices. It will eliminate the 10 to 30 per cent water found in paints, also the 10 to 40 percent mineral oil, etc., found in the barrels labeled "Pure linseed oil," also the 20 to 62 per cent mineral spirits (benzine) found in our "Pure turpentine."

You can see without taking any more of your time, that the passage of this bill is of vital importance to everyone, and we, therefore, would ask that you give it your most able support.

Yours, very truly,

CHESTER F. ROBART,

Chairman Legislative Committee.

NEW HAVEN, CONN., *March 13, 1916.*

HON. FRANCIS G. NEWLANDS,

Senate Office Building, Washington, D. C.

MY DEAR SENATOR: I write you in the interest of an early action and passage of the Kenyon bill now before your honorable committee. This bill if enacted into law will stop the deception now being imposed upon, not alone the merchants, master mechanics, and manufacturers, but the humble owner of his little home who paints it or has it painted to insure it against decay and who comprises the great majority of our American citizens. To think of it, in this enlightened age, that we are purchasing ground rock labeled "Pure lead," and marble dust colored with analine dye labeled "Pure Italian sienna," mineral oil labeled "Pure linseed oil," kerosene oil and benzine for pure turpentine.

These are only a few enumerations for the purpose of expression and brevity. I could name you many others. No greater deception was ever perpetrated in the American Republic, even in its most primitive stage, than that now being practiced in so-called paint and oils at the present time.

This bill if enacted into law will stop this deception and fraud now being imposed upon your constituents and the whole American Republic.

It is my sincere hope that it will receive your most earnest effort in giving it early action and support.

Sincerely, yours,

E. M. WALSH.

WATERLOO, IOWA, *April 3, 1916.*

Senator J. A. REED.

Care of Senate, Washington, D. C.

DEAR SIR: We understand that the Kenyon paint bill as revised comes before the Committee on Manufactures for hearing Tuesday, April 4. We trust that this letter will reach you before action has been taken in this matter.

We are very much interested and believe if you were placed in our position you would realize the importance of Federal legislation along these lines. We wish to briefly outline a transaction that occurred in connection with our company a few months ago, which bears on this subject.

We purchased a considerable quantity of linseed oil from a Chicago firm during the summer of 1915. Our orders called for pure linseed oil and we supposed that this was what we were getting. After the oil was received we found we had more on hand than we desired to carry, and therefore disposed of a quantity of the material to a local oil company of this city. This company disposed of the oil to their customers and later on action was brought against them for selling adulterated oil under the pure-food laws of this State.

They, in order to protect themselves, gave the Iowa pure-food commissioner information as to where they procured the oil and an action was then brought against our company for violating the Iowa State law. We, of course, had to plead guilty and were assessed a fine.

We then attempted to bring action against the parties who were really guilty of the offense and found there was no Federal law under which we could have the guilty parties prosecuted.

We believe that the above is a good illustration of the necessity of a law of this description and trust that the committee can see their way clear to report favorably on the bill.

Thanking you in advance for any assistance you render in helping the Kenyon bill along, we remain,

Yours, truly,

THE LITCHFIELD MANUFACTURING CO.,
E. C. LITCHFIELD.

Vice President and Treasurer.

OXFORD JUNCTION, IOWA, *March 31, 1916.*

J. A. REED,

Chairman Committee on Manufactures, Washington, D. C.

HON. MR. REED: We wish to urge upon your honorable body the passage of the Kenyon paint bill, up for consideration soon. We believe the passage of such a bill would be of great benefit to all paint-material users.

The following will illustrate how we were deceived: In December of last year we purchased from out of the State some linseed oil, boiled, March 1, 1916, delivery, at a figure that was then about 12 or 15 cents below the then quoted pure-oil prices. Well, when the oil arrived, it did not look right to us, and we sent a sample to our dairy and food commissioner, Mr. W. B. Barney, for analysis, to which he informs us immediately that he finds that the sample contains petroleum oil in considerable quantity, and we believe as the law now stands we have no comeback; and he also informs us that he can do nothing, and he also tells us that he knows of no Federal law that protects us.

We can and will, if you so desire, give you full particulars; names of parties, etc., if you wish.

Trusting the above will be of benefit to your honorable body—and we would ask that you keep us posted on what is done—we wish to be,

Very respectfully,

LASACK BROS. & COMPANY.
By CHAS. H. HALL.

CLEVELAND, OHIO, *April 7, 1916.*

Senator REED, *Washington, D. C.*

DEAR SIR: As we find it impossible to attend the special hearing given in the committee room in reference to the Kenyon bill, April 11, we take this means of expressing our views of this bill.

We feel that if section No. 10, requiring the formula on the label, were stricken out it would be just to all, as it would then make this bill a law against misbranding, mislabeling, and misrepresentation, which we think is sufficient in every degree, while the other would be entirely unfair to the manufacturer and the general public would gain nothing thereby.

Trusting this meets with your view, we are,

Yours, truly,

THE ARCO COMPANY,
S. D. WHITE, *Treasurer.*

At a meeting of the Master Painters Association of New Orleans held March 28, 1916, the following resolution was unanimously adopted:

Whereas it has come to knowledge that there is before the United States Senate now in session a bill known as the Kenyon paint, oil, and turpentine bill, which bill requires the formula labeling of white lead, paints, and colors; also creates a standard for linseed oil and turpentine, which will be of great benefit to buyers and users of paints: Therefore, be it

Resolved, That this association go on record as favoring and indorsing the Kenyon paint, oil, and turpentine bill, and that a copy of this resolution be sent to Senator W. S. Kenyon and Senator James A. Reed, also to Senators Joseph E. Ransdell and Robert Broussard, and that they be asked to support and urge early action on this bill.

J. C. MAURER,
President.

GEO. E. EGDORF,
Secretary.

G. PETERSON.
C. P. EILERSON.
W. H. BREEN.
W. H. BROWN.

The CHAIRMAN. If no one else desires to be heard the committee will stand adjourned.

(Thereupon, at 12 o'clock m., the committee adjourned, to meet at the call of the chairman.)

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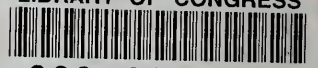
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